



INDIAN AGRICULTURAL
RESEARCH INSTITUTE, NEW DELHI

RI 5
1945-12-17

THE JOURNAL OF BIOLOGICAL CHEMISTRY

FOUNDED BY CHRISTIAN A. HERTER AND SUSTAINED IN PART BY THE CHRISTIAN A. HERTER
MEMORIAL FUND

EDITED FOR THE AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS

BY

RUDOLPH J. ANDERSON, New Haven, Conn.
STANLEY R. BENEDICT, New York, N. Y.
LAFAYETTE B. MENDEL, New Haven, Conn.
DONALD D. VAN SLYKE, New York, N. Y.

INDEX

VOLUMES ~~51-75~~ 57-10

1922-1927 1922

ISAAC NEUWIRTH
has supervised the preparation of this Index

COPYRIGHT 1931
BY
THE JOURNAL OF BIOLOGICAL CHEMISTRY

PUBLISHED AT CORNELL UNIVERSITY MEDICAL COLLEGE FOR
THE JOURNAL OF BIOLOGICAL CHEMISTRY, INC.
WAVERLY PRESS, INC.
BALTIMORE, U. S. A.

AUTHOR INDEX

- Abderhalden, Emil.** Sulfur in proteins. III. Derivatives of *L*- and *D*-cystine. A correction, 1927, 75, 195
- de Aberle, S. B., Hoskins, W. M., and Bodansky, Meyer.** Cholesterol, lecithin, and fatty acids in the blood of new born mice with inherited anemia and their normal litter mates, 1927, 72, 643
- Abramson, Harold A., and Gray, Samuel H.** The diffusion of water into lecithin-collodion membranes, 1927, 73, 459
- , **Eggleton, M. Grace, and Eggleton, Philip.** The utilization of intravenous sodium *r*-lactate. III. Glycogen synthesis by the liver. Blood sugar. Oxygen consumption, 1927, 75, 763
- and **Eggleton, Philip.** The utilization of intravenous sodium *r*-lactate. I. Excretion, by kidneys and intestines, 1927, 75, 745
- and —. II. Changes in acid-base equilibrium as evidence of utilization, 1927, 75, 753
- Ackerson, C. W., Blish, M. J., and Mussehl, F. E.** A study of the phosphorus, calcium, and alkaline reserve of the blood sera of normal and rachitic chicks, 1925, 63, 75
- Adair, Gilbert S.** See **STODDARD and ADAIR**, 1923, 57, 437
- See **BOCK, FIELD, and ADAIR**, 1924, 59, 353
- The hemoglobin system.
I. Classification of reactions, 1925, 63, 493
- II. Theory of reactions which do not obey the law of constant proportions, 1925, 63, 499
- III. The equilibrium of hemoglobin and carbon dioxide, 1925, 63, 503
- IV. The reproduction of the carbon dioxide curves of blood with an artificial mixture of hemoglobin and sodium bicarbonate, 1925, 63, 515
- V. The relation of hemoglobin and bases, 1925, 63, 517
- VI. The oxygen dissociation curve of hemoglobin, 1925, 63, 529
- Adams, Elliott T.** See **HAMMETT and ADAMS**, 1922, 52, 211
1922, 54, 565

- Adams, Elliott T.**—*continued.*
 —. Specific dynamic action from the standpoint of the second and third laws of thermodynamics, 1926, 67, xxi
- Addington, L. H.** See **ROBINSON, HUFFMAN,** and **BURT,** 1927, 73, 477
- Addis, T., and Drury, D. R.** The rate of urea excretion. V. The effect of changes in blood urea concentration on the rate of urea excretion, 1923, 55, 105
 — and —. VII. The effect of various other factors than blood urea concentration on the rate of urea excretion, 1923, 55, 629
 — and —. VIII. The effect of changes in urine volume on the rate of urea excretion, 1923, 55, 639
- , **MacKay, Eaton M., and MacKay, Lois Lockard.** The effect on the kidney of the long continued administration of diets containing an excess of certain food elements. I. Excess of protein and cystine, 1926–27, 71, 139
 —, —, and —. II. Excess of acid and of alkali, 1926–27, 71, 157
- Adeline, Sister Mary, Ceredo, Leopold R., and Sherwin, Carl P.** Detoxication of aromatic cyanides, 1926, 70, 461
- Adolph, Edward F.** Electrostatic forces in the diffusion of water through collodion membranes between solutions of mixed electrolytes, 1925, 64, 339
- Albery, H. G.** See **BENTON** and **ALBERY,** 1926, 68, 251
- Albrecht, P. Gerhard.** Chemical study of several marine mollusks of the Pacific coast. The reproductive system, 1923, 56, 483
 —. Chemical study of several marine mollusks of the Pacific coast. The liver, 1923, 57, 789
- Alcott, M. D.** See **ROWE, ALCOTT,** and **MORTIMER,** 1924, 59, xli
- Allan, F. N.** The glucose equivalent of insulin on depancreatized dogs, 1924, 59, xxviii
- Allen, D. M.** See **BLOOR, PELKAN,** and **ALLEN,** 1922, 52, 191
- Allen, Edgar.** See **DOISY, ALLEN, RALLS,** and **JOHNSTON,** 1924, 59, xliii
 —. See **DOISY, RALLS, ALLEN,** and **JOHNSTON,** 1924, 61, 711
- Allen, R. S.** See **PIPER, ALLEN,** and **MURLIN,** 1923–24, 58, 321
 1924, 59, xxxii
- Alles, Gordon A., and Winegarden, Howard M.** Oxidation of glucose by iodine in the presence of insulin, 1923–24, 58, 225
- Allin, Kathleen Drew.** See **HARDING, ALLIN,** and **VAN WYCK,** 1924–25, 62, 61
 —. See **HARDING, ALLIN, EAGLES,** and **VAN WYCK,** 1925, 63, 37, xlix
 —. See **HARDING** and **ALLIN,** 1926, 69, 133
 —. See **HARDING, ALLIN,** and **EAGLES,** 1927, 74, 631

- Alsberg, C. L., and Perry, E. E.
Further studies on the effect
of fine grinding upon starch
grains, 1925, 63, lxvi
— See DILL and ALSBERG,
1925, 63, lxvii, lxviii
— See FIELD and ALSBERG,
1925, 63, xlii
— See DILL and ALSBERG,
1925, 65, 279
— See GOTTENBERG and ALS-
BERG, 1927, 73, 581
— and Griffing, E. P. Ob-
servations upon starch,
1927, 74, lxv
Amberg, Samuel. The rate of
filtration of some aqueous
protein solutions,
1926, 67, lx
Anderegg, L. T. Diet in rela-
tion to reproduction and
rearing of young,
1924, 59, 587
Anderson, Arthur K., and
Schutte, Harry S. The de-
termination of nitrogen in
connection with the wet com-
bustion method for carbon,
1924, 61, 57
Anderson, J. A. See PETERSON,
FRED, and ANDERSON,
1922, 53, 111
Anderson, R. J., and Kulp,
W. L. A study of the me-
tabolism and respiratory ex-
change in poultry during
vitamin starvation and poly-
neuritis, 1922, 52, 69
— Composition of corn pollen.
II. Concerning certain
lipoids, a hydrocarbon, and
phytosterol occurring in the
pollen of White Flint corn,
1923, 55, 611
— Concerning the antho-
cyans in Norton and Concord
grapes. A contribution to
the chemistry of grape pig-
ments, 1923, 57, 795
— A contribution to the
chemistry of grape pigments.
III. Concerning the antho-
cyans in Seibel grapes,
1924, 61, 685
— and Nabenhauer, Fred P.
A contribution to the chem-
istry of grape pigments. II.
Concerning the anthocyanins
in Clinton grapes,
1924, 61, 97
— Properties of cholesterol
obtained from different
sources,
1926-27, 71, 407
—, Nabenhauer, Fred P., and
Shriner, R. L. The distri-
bution of dihydrositosterol
in plant fats,
1926-27, 71, 389
— and Shriner, R. L. The
reduction products of certain
plant sterols,
1926-27, 71, 401
— The separation of lipid
fractions from tubercle
bacilli, 1927, 74, 525
— A study of the lipoids of
tubercle bacilli,
1927, 74, lxvi
— A study of the phospho-
tide fraction of tubercle
bacilli, 1927, 74, 537
— See HESS and ANDERSON,
1927, 74, 651
Anderson, Rubert S. See
NELSON and ANDERSON,
1926, 69, 443
Anderson, William E. See
SMITH and ANDERSON,
1924, 59, viii
— and Smith, Arthur H. The
effect of acute scurvy on the
subsequent nutrition and
growth of guinea pigs,
1924, 61, 181

- Anderson, William E.**—*continued*.
 —. The influence of diet on fat production in the animal body, 1925, 63, xlv
Andrew, Robert H. See **FENGER** and **ANDREW**, 1927, 73, 371
- Andrews, James C.** Experimental studies on palladium electrodes, 1924, 59, 479
 —. The optical activity of cystine, 1925, 63, xx
 1925, 65, 147
 —. The oxidation of cystine, 1925, 65, 161
 —. The optical activity of cysteine, 1926, 67, lix
 1926, 69, 209
 —. The optical activity of *l*-cystine, 1927, 74, xiii
 —. The reduction of cystine-hydrogen peroxide as a catalyst, 1927, 74, xi
 —. The resolution of racemic cystine, 1927, 74, xii
- Andrews, Samuel, and Schmidt, Carl L. A.** Titration curves of taurine and of cysteic acid, 1927, 73, 651
- Anson, M. L., and Mirsky, A. E.** The reversibility of protein coagulation, 1927, 74, lvii
- Arai, Minoru.** See **OKADA** and **ARAI**, 1922, 51, 135
- Ariyama, N.** Observations on glyoxals and glyoxalase, with a new colorimetric method for glyoxals, 1927, 74, xlv
- Arnold, Rossleene M., and Mendel, Lafayette B.** Interrelationships between the chemical composition of the blood and the lymph of the dog, 1927, 72, 189
- Atchley, Dana W.** See **LOEB**, **ATCHLEY**, and **BENEDICT**, 1924, 60, 491
 — and **Nichols, Emily G.** The influence of protein concentration on the conductivity of human serum, 1925, 65, 729
 — and **Benedict, Ethel M.** The distribution of electrolytes in dogs following ligation of both ureters, 1927, 73, 1
 — and —. The distribution of electrolytes in intestinal obstruction, 1927, 75, 697
- Atkinson, A. J.** See **TATUM** and **ATKINSON**, 1922, 54, 331
- Atkinson, Harry V., and Ets, Harold N.** Chemical changes of the blood under the influence of drugs. I. Ether, 1922, 52, 5
 —, **Rapport, David, and Lusk, Graham.** Animal calorimetry. XXII. The production of fat from protein, 1922, 53, 155
- Austin, J. Harold.** See **VAN SLYKE**, **AUSTIN**, and **CULLEN**, 1922, 53, 277
 —, **Cullen, Glenn E., Hastings, A. Baird, McLean, Franklin C., Peters, John P., and Van Slyke, Donald D.** Studies of gas and electrolyte equilibria in blood. I. Technique for collection and analysis of blood, and for its saturation with gas mixtures of known composition, 1922, 54, 121
 —. See **PETERS**, **CULLEN**, and **AUSTIN**, 1922, 54, 149
 —. See **CULLEN** and **AUSTIN**, 1923, 55, xlii

Authors

- See CULLEN, AUSTIN, KORNBLUM, and ROBINSON, 1923, 56, 625
 - and Gram, H. C. The effect of ether added *in vitro* on the carbon dioxide and chloride distribution between cells and serum, 1924, 59, 535
 - A note on the estimation of carbon dioxide in serum in the presence of ether by the Van Slyke method, 1924, 61, 345
 - , Cullen, Glenn E., Gram, H. C., and Robinson, Howard W. The blood electrolyte changes in ether acidosis, 1924, 61, 829
 - , Stadie, William C., and Robinson, Howard W. The relation between colorimetric reading and true pH of serum or plasma, 1925, 66, 505
 - See STADIE, AUSTIN, and ROBINSON, 1925, 66, 901
 - , Sunderman, F. William, and Camack, J. G. The osmotic pressure of hemoglobin and of base bound by hemoglobin, 1926, 70, 427
 - , —, and —. Studies in serum electrolytes. II. The electrolyte composition and the pH of serum of a poikilothermous animal at different temperatures, 1927, 72, 677
 - Austin, W. C. Phospholipins in yeast, 1924, 59, lii
 - and Boyd, T. E. On the nature of urinary glucose, 1925, 63, xxii
 - The effect of the parathyroid hormone on gastric secretion. The calcium content of gastric juice, 1927, 74, lxiv
 - Austmann, K. J. See CAMERON and MOORHOUSE, 1925, 63, 687
 - Axtmayer, J. H. See SHERMAN and AXTMAYER, 1927, 75, 207
- B
- Baerg, W. J. See SURE, 1926, 69, 41
 - Baernstein, Harry D., and Bradley, H. C. Pepsin and the autolytic protease, 1926, 67, xiv
 - The conductivity method and proteolysis. I. Experiments on peptone, 1927, 74, lviii, 351
 - Balls, A. K., and Brown, J. B. Studies in yeast metabolism. I, 1924-25, 62, 789
 - See BROWN and BALLS, 1924-25, 62, 823
 - Concerning pseudomorphine, 1926-27, 71, 537
 - The separation and estimation of morphine, pseudomorphine, and related substances, 1926-27, 71, 543
 - Barbour, A. D. The question of the interaction of insulin, muscle tissue, and glucose, 1926, 67, 53
 - Barbour, Henry G. See STEHLE, BOURNE, and BARBOUR, 1922, 53, 341
 - and Hamilton, William F. The falling drop method for determining specific gravity, 1926, 69, 625
 - See HAMILTON and BARBOUR, 1927, 74, 553

- Barkus, Otakar.** See **MORGULIS** and **BARKUS**,
1925, 63, lxviii
- See **MORGULIS** and **BARKUS**,
1925, 65, 1
- See **MORGULIS**,
1925, 66, 353
- Barley, Charles V.** See **RAKE-
STRAW**,
1923, 56, 121
- Barnett, Marion.** See **McCANN** and **BARNETT**,
1922, 54, 203
- Barr, David P., and Himwich,
Harold E.** Studies in the
physiology of muscular ex-
ercise. II. Comparison of
arterial and venous blood
following vigorous exercise,
1923, 55, 525
- and —. III. Development
and duration of changes in
acid-base equilibrium,
1923, 55, 539
- , —, and **Green, Robert P.**
Studies in the physiology
of muscular exercise. I.
Changes in acid-base equilib-
rium following short periods
of vigorous muscular exer-
cise, 1923, 55, 495
- . Studies in the physiology
of muscular exercise. IV.
Blood reaction and breathing,
1923, 56, 171
- See **HIMWICH** and **BARR**,
1923, 57, 363
- See **HIMWICH**, **LOEBEL**,
and **BARR**,
1924, 59, 265
- See **LOEBEL**, **BARR**, **TOL-
STOI**, and **HIMWICH**,
1924, 61, 9
- Barry, William M., and Levine,
Victor E.** The isolation of
biliverdin from bile,
1923, 55, xxxvii
- and —. The oxidation and
reduction of bile pigments,
1924, 59, lii
- Bartlett, H. H.** See **CAKE** and
BARTLETT,
1922, 51, 93
- See **SANDO** and **BARTLETT**,
1922, 54, 629
- Barton, J.** See **McCLENDON**,
1926, 69, 733
- Bass, Lawrence W.** See **LE-
VENE** and **BASS**,
1926, 70, 211
- See **LEVENE**, **BASS**, and
SIMMS,
1926, 70, 229
- See **LEVENE**, **SIMMS**, and
BASS,
1926, 70, 243
- See **LEVENE** and **BASS**,
1926-27, 71, 167
- See **LEVENE**, **BASS**, **STEI-
GER**, and **BENCOWITZ**,
1927, 72, 815
- See **LEVENE** and **BASS**,
1927, 74, 715, 727
- Baudisch, Oskar.** On the
chemistry of the pyrimidines.
VI. New color tests for uracil
and cytosine,
1924, 60, 155
- and **Welo, Lars A.** On the
mechanism of the catalytic
action of iron salts. I,
1924, 61, 261
- and **Davidson, David.** The
mechanism of oxidation of
thymine. 4,5-Dihydroxyhy-
drothymine (thymineglycol),
1925, 64, 233
- and **Welo, Lars A.** On the
aging of ferrous hydroxide
and ferrous carbonate,
1925, 64, 753
- and —. On the aging of
natural mineral waters,
1925, 64, 771
- See **DAVIDSON** and **BAU-
DISCH**,
1925, 64, 619
- See **WELO** and **BAUDISCH**,
1925, 65, 215

Authors

- and Davidson, David. Catalytic oxidation by means of complex iron salts, 1926-27, 71, 501
- and —. The oxidation of 5-aminouracil, 1926-27, 71, 497
- and —. The catalytic oxidation of hydantoins, 1927, 75, 247
- Bauer, Virginia, and Blunt, Katharine. Effect of a small breakfast on the energy metabolism of children, 1924, 59, 77
- Baumann, Emil J., and Holly, Olive M. The relation of lipoids to suprarenal physiology. I. The cholesterol and lipid phosphorus contents of the blood of rabbits before and after suprarenal-ectomy, 1923, 55, 457
- . On the estimation of organic phosphorus, 1924, 59, 667
- and Holly, Olive M. Variations in the blood cholesterol and phosphatides of rabbits due to pregnancy, 1924, 59, xxv
- . A simple method for preparing large quantities of yeast nucleic acid as a magnesium compound, 1924, 61, 1
- and Holly, Olive M. The influence of infection on the lipoids of the suprarenal gland, 1925, 63, lxiii
- and Hunt, Louise. On the relation of thyroid secretion to specific dynamic action, 1925, 64, 709
- . The effect of compensatory hypertrophy on the fat, cholesterol, and phosphatide content of the suprarenal gland, 1926, 67, xxx
- and Kurland, Sarah. Changes in the inorganic constituents of blood in suprarenalectomized cats and rabbits, 1926-27, 71, 281
- Bazin, Eleanor V. See RABINOWITCH, 1925, 65, 55
1926, 69, 283
- Beadles, Jessie R. See MITCHELL and BEADLES, 1926-27, 71, 429
- . See MITCHELL, BEADLES, and KEITH, 1926-27, 71, 15
- . See MITCHELL, BEADLES, and KRUGER, 1927, 73, 767
- Beard, Howard H. See COWGILL, SMITH, and BEARD, 1925, 63, xxiii
- and Jersey, Vernon. The specific rotatory power of glucose-insulin solutions in contact with muscle tissue *in vitro*, 1926, 70, 167
- . The nutritive value of plastein, 1926-27, 71, 477
- . See RAPPORT and BEARD, 1927, 73, 285, 299
- Beaver, Jacob J. See BERNHARD and BEAVER, 1926, 69, 113
- Beber, M. See MORGULIS, BEBER, and RABKIN, 1926, 68, 521, 535, 547
- . See MORGULIS and BEBER, 1927, 72, 91
- Becker, J. Ernestine. See MCCOLLUM, SIMMONDS, and BECKER, 1922, 53, 313
- . See MCCOLLUM, SIMMONDS, BECKER, and SHIPLEY, 1922, 53, 293
1922, 54, 249

Becker, J. Ernestine.—*continued.*

— See McCOLLUM, SIMMONDS, and BECKER,

1925, 63, 547

— See McCOLLUM, SIMMONDS, BECKER, and BUNTING,

1925, 63, 553

— See McCOLLUM, SIMMONDS, and BECKER,

1925, 64, 161

— See McCOLLUM, SIMMONDS, BECKER, and SHIPLEY,

1925, 65, 97

1926, 70, 437

— See SIMMONDS, BECKER, and McCOLLUM,

1927, 74, lxviii

Beckmann, J. W. See DOISY and BECKMANN,

1922, 54, 683

Beeler, Carol. See WILDER, BOOTHBY, and BEELER,

1922, 51, 311

Behre, Jeanette Allen, and Benedict, Stanley R.

Studies in creatine and creatinine metabolism. IV. On the question of the occurrence of creatinine and creatine in blood,

1922, 52, 11

— Observations on the determination of blood urea,

1923, 56, 395

— See BENEDICT, NEWTON, and BEHRE,

1926, 67, 267

— and Benedict, Stanley R.

A colorimetric method for the determination of acetone bodies in blood and urine,

1926, 70, 487

Behrendt, F. See GIVENS and BEHRENDT,

1924, 59, x

Bell, Marion. See BLATHERWICK, BELL, and HILL,

1924, 59, xxxv

— See BLATHERWICK, LONG, BELL, MAXWELL, and HILL,

1924, 59, xxxvi

— See BLATHERWICK, BELL, and HILL,

1924, 61, 241

— See BLATHERWICK, BELL, HILL, and LONG,

1925, 66, 801

Bell, Raymond W. The effect of heat on the solubility of the calcium and phosphorus compounds in milk,

1925, 64, 391

Bellinger, Margaret. See LENNOX,

1927, 73, 237

Bellis, B. See HESS, SUPPLEE, and BELLIS,

1923, 57, 725

Bencowitz, Isaac. See LEVENE, BASS, STEIGER, and BENCO-

WITZ,

1927, 72, 815

— See LEVENE and BENCO-

WITZ,

1927, 72, 627

1927, 73, 679

1927, 74, 153

Benedict, Ethel M., and Harrop, George A., Jr. The estimation of formic acid in the urine,

1922, 54, 443

— See HARROP and BENEDICT,

1924, 59, 683

— See LOEB, ATCHLEY, and BENEDICT,

1924, 60, 491

— See WEST and BENEDICT,

1925, 66, 139

—, **Dakin, H. D., and West, R.**

On glucose and its biochemical behavior,

1926, 68, 1

— See ATCHLEY and BENEDICT,

1927, 73, 1

1927, 75, 697

Benedict, Francis G., and Fox, Edward L. A method for the determination of the energy values of foods and excreta,

1925, 66, 783

- Benedict, Stanley R.** The determination of uric acid in blood, 1922, 51, 187
- See **NASH** and **BENEDICT**, 1922, 51, 183
- and **Franke, Elizabeth.** A method for the direct determination of uric acid in urine, 1922, 52, 387
- See **BEHRE** and **BENEDICT**, 1922, 52, 11
- The determination of uric acid, 1922, 54, 233
- A method for the purification of picric acid for creatinine determinations, 1922, 54, 239
- See **DAVIS**, **NEWTON**, and **BENEDICT**, 1922, 54, 595
- and **Osterberg, Emil.** Sugar elimination after the subcutaneous injection of glucose in the dog. Including a discussion of the paper on observations on carbohydrates by **Folin** and **Berglund**, 1923, 55, 769
- See **NASH** and **BENEDICT**, 1923, 55, 757
- See **SUGIURA** and **BENEDICT**, 1923, 55, 33
- and **Osterberg, Emil.** Studies in creatine and creatinine metabolism. V. The metabolism of creatine, 1923, 56, 229
- and **Theis, Ruth C.** A modification of the molybdc method for the determination of inorganic phosphorus in serum, 1924, 61, 63
- See **NASH** and **BENEDICT**, 1924, 61, 423
- See **THEIS** and **BENEDICT**, 1924, 61, 67
- The determination of blood sugar, 1925, 64, 207
- The determination of uric acid in the blood, 1925, 64, 215
- , **Newton, Eleanor B.**, and **Behre, Jeanette Allen.** A new sulfur-containing compound (thiasine) in the blood, 1926, 67, 267
- The estimation of sugar in blood and normal urine, 1926, 68, 759
- and **Nash, Thomas P., Jr.** The site of ammonia formation and the rôle of vomiting in ammonia elimination, 1926, 69, 381
- See **BEHRE** and **BENEDICT**, 1926, 70, 487
- See **NEWTON**, **BENEDICT**, and **DAKIN**, 1927, 72, 367
- Bennett, Helen B.** See **SHOHL** and **BENNETT**, 1927, 74, iv, 247
- Bennett, Mary A.** A comparison of the pH of serum and plasma of dog blood, 1926, 69, 693
- A note on Cullen's colorimetric method for the determination of the pH of blood plasma, 1926, 69, 697
- Some changes in the acid-base equilibrium of the blood caused by hemorrhage, 1926, 69, 675
- Benninghoven, C. D.** See **FOSTER** and **BENNINGHOVEN**, 1926, 70, 285
- Benson, C. C.** Chemical change in fish muscle during rigor mortis, 1925, 63, lxxii

- Benton, Anne G., and Albery, H. G. Studies on the stability of evaporated milk during sterilization, with reference to the hydrogen ion concentration, alcohol test, and the addition of specific buffers, 1926, 68, 251
- Berg, Benjamin N. See HESS, BERG, and SHERMAN, 1927, 74, xxvii
- Bergeim, Olaf. Intestinal chemistry. I. The estimation of intestinal reductions, 1924-25, 62, 45
- II. Intestinal reductions as measures of intestinal putrefaction, with some observations on the influence of diet, 1924-25, 62, 49
- Intestinal absorption of calcium and phosphorus, 1926, 67, lv
- Intestinal chemistry. IV. A method for the study of food utilization or digestibility, 1926, 70, 29
- V. Carbohydrates and calcium and phosphorus absorption, 1926, 70, 35
- VI. A method for the study of absorption in different parts of the gastrointestinal tract, 1926, 70, 47
- VII. The absorption of calcium and phosphorus in the small and large intestines, 1926, 70, 51
- Berger, John. See BLATHERWICK, MAXWELL, BERGER, and SAHYUN; 1926, 67, xxxiii
- See BLATHERWICK, BISCOFF, MAXWELL, BERGER, and SAHYUN, 1927, 72, 57
- Berglund, Hilding. See FOLIN and BERGLUND, 1922, 51, 209, 213, 395
- See LOONEY, BERGLUND, and GRAVES, 1923, 57, 515
- See FOLIN, BERGLUND, and DERICK, 1924, 60, 361
- and Ni, Tsang G. Types of tolerance for different carbohydrates (galactose, pentoses), 1925, 63, xlviii
- Berkeley, C. The distribution of pentose compounds in the pancreatic tissues of the ling cod (*Ophiodon elongatus*, Girard), 1923-24, 58, 611
- Bernhard, Adolph, and Beaver, Jacob J. The electro-dialysis of human blood serum, 1926, 69, 113
- Berthelsen, Knud C. See VAN SLYKE, HILLER, and BERTHELSEN, 1927, 74, 659
- Best, Charles H., and Macleod, J. J. R. Some chemical reactions of insulin, 1923, 55, xxix
- and Scott, D. A. The preparation of insulin, 1923, 57, 709
- , Smith, Ralph G., and Scott, D. A. Insulin in tissues other than pancreas, 1924, 59, xxx
- See LITTLE, LEVINE, and BEST, 1924, 59, xxxvii
- and Ridout, J. H. Observations on blood lactic acid after insulin, 1925, 63, 197
- Bethke, R. M. See HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY, 1922, 54, 75

- and Steenbock, H. Metabolism of *l*-pyrrolidone carboxylic acid and its stability to acids and alkalis, 1923-24, 58, 105
- , —, and Nelson, Mariana T. Fat-soluble vitamins. XV. Calcium and phosphorus relations to growth and composition of blood and bone with varying vitamin intake, 1923-24, 58, 71
- , Kennard, D. C., and Kik, M. C. Nutritional studies of the growing chick. I. The relation of sunlight and green clover to leg weakness in chicks, 1925, 63, 377
- , —, and Sassaman, H. L. The fat-soluble vitamin content of hen's egg yolk as affected by the ration and management of the layers, 1927, 72, 695
- Beutner, R., and Menitoff, A. Influence of salt content of colloids upon their electromotive forces which may explain bioelectric currents, 1927, 72, 759
- Bezssonoff, Nikolai. The Jendrassik reaction for water-soluble B. Concerning Victor E. Levine's critical study, 1925, 64, 589
- Bigwood, E. J., and Ladd, W. S. The qualitative tests for acetone bodies; their significance and value, 1923-24, 58, 347
- Billmann, Einar. See CULLEN and BILLMANN, 1925, 64, 727
- Bills, Charles E. The resistance of the antirachitic substance in cod liver oil to reagents, 1925, 64, 1
- Antiricketic substances. II. The action of *n*-butyl nitrite on activated cholesterol and the antiricketic vitamin, 1925, 66, 451
- III. The catalytic formation of an antiricketic cholesterol derivative, 1926, 67, 753
- Fat solvents, 1926, 67, 279
- and McDonald, Francis G. Antiricketic substances. IV. The polymerization of cholesterol, 1926, 68, 821
- Antiricketic substances. VI. The distribution of vitamin D, with some notes on its possible origin, 1927, 72, 751
- and McDonald, Francis G. Antiricketic substances. V. The action of ultra-violet rays on the ethers and esters of cholesterol, 1927, 72, 13
- and —. The catalytic formation of mixed cholesterol ethers, 1927, 72, 1
- Bisbey, Bertha. See ROSE and MACLEOD, 1925, 66, 847
- Bischoff, Fritz, Maxwell, L. C., and Blatherwick, N. R. Note on the Wyss chemical method of assaying insulin, 1926, 67, 547
- See BLATHERWICK, BISCHOFF, MAXWELL, BERGER, and SAHYUN, 1927, 72, 57
- See MAXWELL, BISCHOFF, and BLATHERWICK, 1927, 72, 51

Bischoff, Fritz.—*continued.*

- , Blatherwick, N. R., and Hill, Elsie. The fate of colloidal lead compounds after intravenous injection, 1927, 74, lxxix

Bishop, George H. Autolysis and insect metamorphosis, 1923-24, 58, 567

- , Body fluid of the honey bee larva. I. Osmotic pressure, specific gravity, pH, oxygen capacity, carbon dioxide capacity, and buffer value, and their changes with larval activity and metamorphosis, 1923-24, 58, 543

- , Briggs, A. P., and Ronzoni, Ethel. Body fluids of the honey bee larva. II. Chemical constituents of the blood, and their osmotic effects, 1925, 66, 77

Black, Archie. See HART, HALPIN, and STEENBOCK, 1922, 52, 379

- , See STEENBOCK, HART, JONES, and BLACK, 1923-24, 58, 59

- , See STEENBOCK, NELSON, and BLACK, 1924, 59, ix

- , See STEENBOCK and BLACK, 1924, 61, 405

- , See STEENBOCK, NELSON, and BLACK, 1924-25, 62, 275

- , See STEENBOCK, BLACK, NELSON, NELSON, and HOPPERT, 1925, 63, xxv

- , See STEENBOCK and BLACK, 1925, 64, 263

- , See STEENBOCK, HART, HOPPERT, and BLACK, 1925, 66, 441

Blatherwick, N. R., and Long, M. Louisa. The utilization of calcium and phosphorus of vegetables by man, 1922, 52, 125

- and —. Studies of urinary acidity. I. Some effects of drinking large amounts of orange juice and sour milk, 1922, 53, 103

- and —. II. The increased acidity produced by eating prunes and cranberries, 1923, 57, 815

- , Bell, Marion, and Hill, Elsie. Some effects of insulin on the carbohydrate and phosphorus metabolism of normal individuals, 1924, 59, xxxv

- , Long, M. Louisa, Bell, Marion, Maxwell, L. C., and Hill, Elsie. Some factors influencing the response of rabbits to insulin, 1924, 59, xxxvi

- , Bell, Marion, and Hill, Elsie. Some effects of insulin on the carbohydrate and phosphorus metabolism of normal individuals, 1924, 61, 241

- , —, —, and Long, M. Louisa. The excretion of normal urine sugar, 1925, 66, 801

- , Maxwell, L. C., Berger, John, and Sahyun, Melville. Studies on insulin, 1926, 67, xxxiii

- , See BISCHOFF, MAXWELL, and BLATHERWICK, 1926, 67, 547

- , Bischoff, Fritz, Maxwell, L. C., Berger, John, and Sahyun, Melville. Studies on insulin, 1927, 72, 57

- . See MAXWELL, BISCHOFF,
and BLATHERWICK,
1927, 72, 51
- . See BISCHOFF, BLATHER-
WICK, and HILL,
1927, 74, lxxix
- , Sahyun, Melville, and Hill,
Elsie. Some effects of
synthalin on metabolism,
1927, 75, 671
- Blau, Nathan F. The amino
acid nitrogen of the blood.
I. The total free amino acid
nitrogen in blood,
1923, 56, 861
- . II. The diamino nitrogen
in the protein-free blood
filtrate, 1923, 56, 867
- . III. A study of the occur-
rence of peptide nitrogen in
the blood, 1923, 56, 873
- Blish, M. J. See ACKERSON,
BLISH, and MUSSEHL,
1925, 63, 75
- Bliss, Sidney. The site of
ammonia formation and the
prominent rôle of vomiting in
ammonia elimination,
1926, 67, 109
- Bloor, W. R., Pelkan, K. F.,
and Allen, D. M. Deter-
mination of fatty acids (and
cholesterol) in small amounts
of blood plasma,
1922, 52, 191
- . See HILL and BLOOR,
1922, 53, 171
- . The fatty acids of blood
plasma. I,
1923, 56, 711
- . II. The distribution of the
unsaturated acids,
1924, 59, 543
- . The forms of combination
of the unsaturated fatty acid
in blood plasma,
1924, 59, xxiv
- . See SPERRY and BLOOR,
1924, 60, 261
- . The fatty acids of blood
plasma, 1925, 63, xlv
- . Plasma lipoids in experi-
mental anemia,
1925, 63, 1
- . Distribution of unsat-
urated fatty acids in tissues.
I. Beef heart muscle,
1926, 68, 33
- . II. Voluntary muscle of
beef, 1927, 72, 327
- and Sinclair, R. G. The
determination of small
amounts of fatty acids,
1927, 74, iv
- , Gillette, Ethelyn M., and
James, Mildred S. Fat
metabolism in diabetes. I.
The blood lipids in experi-
mental diabetes,
1927, 75, 61
- Blumenstock, Julius, and
Ickstadt, Albert. A note on
the rôle of the liver in
parathyroid tetany,
1924, 61, 91
- Blunt, Katharine. See Mc-
LAUGHLIN and BLUNT,
1923-24, 58, 267, 285
- . See BAUER and BLUNT,
1924, 59, 77
- . See CHANEY and BLUNT,
1925, 66, 829
- , Tilt, Jennie, McLaughlin,
Laura, and Gunn, Katherine
B. The basal metabolism of
girls, 1926, 67, 491
- . See CHANEY and BLUNT,
1926, 67, xxxi
- . See WILLARD and BLUNT,
1927, 75, 251
- Bock, A. V., Field, H., Jr., and
Adair, Gilbert S. The
oxygen and carbon dioxide
dissociation curves of human
blood, 1924, 59, 353

Bock, A. V.—continued.

- See HENDERSON, BOCK, FIELD, and STODDARD, 1924, 59, 379
- and Field, H., Jr. The carbon dioxide equilibrium in alveolar air and arterial blood, 1924-25, 62, 269
- See ADAIR, 1925, 63, 493, 499, 503, 515, 517, 529
- , Dill, D. B., Hurxthal, L. M., Lawrence, J. S., Coolidge, Thomas B., Dailey, Mary Elizabeth, and Henderson, L. J. Blood as a physicochemical system. V. The composition and respiratory exchanges of normal human blood during work, 1927, 73, 749
- See DILL, VAN CAULAERT, HURXTHAL, STODDARD, BOCK, and HENDERSON, 1927, 73, 251
- See DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK, 1927, 74, 303
- See DILL, LAWRENCE, HURXTHAL, and BOCK, 1927, 74, 313
- See HENDERSON, BOCK, DILL, HURXTHAL, and VAN CAULAERT, 1927, 75, 305
- Bock, Joseph C.** On the use of formaldehyde for the preservation of blood specimens, 1924, 59, 73
- See GILBERT and BOCK, 1924-25, 62, 361
- and Gilbert, Max. On the determination of non-protein nitrogen in very small amounts of blood, 1925, 63, xxxix
- See GILBERT, SCHNEIDER, and BOCK, 1926, 67, 629
- , Schneider, Hans, and Gilbert, Max. Blood sugar studies. II. The initial rise, 1926, 69, 9
- Bodansky, Aaron.** A study of a milk-coagulating enzyme of *Solanum elaeagnifolium*, 1924, 61, 365
- On the relation of the thyroid to the effects of insulin, 1925, 63, lxvi
- Bodansky, Meyer.** Fructose, glucose, and galactose tolerance in dogs, 1923, 56, 387
- The action of hydrazine and some of its derivatives in producing liver injury as measured by the effect on levulose tolerance, 1923-24, 58, 799
- The effect of chloroform and phosphorus poisoning on carbohydrate tolerance, 1923-24, 58, 515
- See HENDRIX and BODANSKY, 1924, 60, 657
- The distribution of the unsaturated fatty acids, cholesterol, and cholesterol esters in experimental anemia, 1925, 63, lvi, 239
- Plasma proteins in experimental anhydremia, 1926, 67, xxxviii
- See HENDRIX, FAY, CALVIN, and BODANSKY, 1926, 69, 449
- See DE ABERLE, HOSKINS, and BODANSKY, 1927, 72, 643
- , Morse, Stanley W., Kiech, Veon C., and Bramkamp, Robert B. The distribution

- of protein in the blood in experimental anemia,
1927, 74, 463
- Bodansky, Oscar.** See **LOEB** and **BODANSKY**,
1926, 67, 79
1927, 72, 415
- Bodey, Mabel G., Lewis, Howard B., and Huber, John F.** The absorption and utilization of inulin as evidenced by glycogen formation in the white rat,
1927, 75, 715
- Bogert, L. Jean, and Kirkpatrick, Elizabeth E.** Studies in inorganic metabolism. II. The effects of acid-forming and base-forming diets upon calcium metabolism,
1922, 54, 375
- and **McKittrick, Elizabeth J.** Studies in inorganic metabolism. I. Interrelations between calcium and magnesium metabolism,
1922, 54, 363
- and **Trail, Ruth K.** Studies in inorganic metabolism. III. The influence of yeast and butter fat upon calcium assimilation,
1922, 54, 387
- and —. IV. The influence of yeast and butter fat upon magnesium and phosphorus assimilation,
1922, 54, 753
- and **Plass, E. D.** Placental transmission. I. The calcium and magnesium content of fetal and maternal blood serum,
1923, 56, 297
- See **PLASS** and **BOGERT**,
1924, 59, xxiv
- Boggs, H. M.** See **SURE**,
1927, 74, 45, 55, 71
- Bolliger, Adolph, and Hartman, F. W.** Observations on blood phosphates as related to carbohydrate metabolism,
1925, 63, lvi
- and —. Observations on blood phosphates as related to carbohydrate metabolism,
1925, 64, 91
- The effect of anesthesia on phosphate metabolism,
1926, 67, lvi
- Phosphate metabolism as related to anesthesia,
1926, 69, 721
- Booher, Lela E.** See **MYERS**, **SCHMITZ**, and **BOOHER**,
1923, 57, 209
- See **MYERS** and **BOOHER**,
1924, 59, xxiii, 699
- Boothby, Walter M.** See **WILDER**, **BOOTHBY**, and **BEELER**,
1922, 51, 311
- and **Sandiford, Irene.** A comparison of the Du Bois and the Harris and Benedict normal standards for the estimation of the basal metabolic rate,
1922, 54, 767
- and —. Summary of the basal metabolism data on 8614 subjects with especial reference to the normal standards for the estimation of the basal metabolic rate,
1922, 54, 783
- See **SANDIFORD**, **BOOTHBY**, and **GIFFIN**,
1923, 55, xxiii
- and **Sandiford, Irene.** A quantitative estimate of the catalytic power of adrenalin and thyroxin as calorogenic agents and the relative rate of their destruction,
1924, 59, xl

- Boothby, Walter M.—*continued*.
 — and Weiss, Robert. The effect of insulin on the respiratory metabolism, 1925, 63, p. 1
 —. See DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY, 1926, 67, xxiii
 —. See SANDIFORD, SANDIFORD, DEUEL, and BOOTHBY, 1926, 67, xxiv
 Borgstrom, P. See DENIS and BORGSTROM, 1924, 61, 109
 Borsook, Henry. See HUNTER and BORSOOK, 1923, 57, 507
 — and Wasteneys, Hardolph. The enzymatic synthesis of protein. II. The effect of temperature on the synthesizing action of pepsin, 1924-25, 62, 633
 —. See WASTENEYS and BORSOOK, 1924-25, 62, 1, 15, 675
 — and Wasteneys, Hardolph. The enzymatic synthesis of protein. IV. The effect of concentration on peptic synthesis, 1925, 63, 563
 —. See WASTENEYS and BORSOOK, 1925, 63, 575
 Bourne, Wesley. See STEHLE, BOURNE, and BARBOUR, 1922, 53, 341
 —. See STEHLE and BOURNE, 1924, 60, 17
 Boyd, James I. See ROE, IRISH, and BOYD, 1926, 67, 579
 1927, 75, 685
 Boyd, T. E. See AUSTIN and BOYD, 1925, 63, xxii
 Boyden, Edward A. See FISKE and BOYDEN, 1926, 70, 535
 Boyden, Ruth E. See OKEY, 1925, 63, xxxiii
 —. See OKEY and BOYDEN, 1927, 72, 261
 Boynton, Lyman C., and Miller, Robert C. The occurrence of a cellulase in the ship-worm, 1927, 75, 613
 Bradley, H. C. Studies of autolysis. VIII. The nature of autolytic enzymes, 1922, 52, 467
 —. See SEVRINGHAUS, KOEHLER, and BRADLEY, 1923, 57, 163
 —. See CHEN and BRADLEY, 1924, 59, 151
 —. See HERTZMAN and BRADLEY, 1924, 59, xix
 —. See CHEN, MEEK, and BRADLEY, 1924, 61, 807
 —. See HERTZMAN and BRADLEY, 1924, 61, 275
 1924-25, 62, 231
 1925, 63, xxxvii
 —. See BAERNSTEIN and BRADLEY, 1926, 67, xiv
 Brakefield, J. L., and Schmidt, Carl L. A. Studies on the synthesis and elimination of certain bile components in obstructive jaundice, 1926, 67, 523
 —. Detoxication of benzoic acid in man, 1927, 74, 783
 Braman, Winfred W. The ratio of carbon dioxide to heat production in cattle, 1924, 60, 79
 Bramkamp, Robert B. See BODANSKY, MORSE, KIECH, and BRAMKAMP, 1927, 74, 463

- Brand, Erwin.** See **SANDBERG** and **BRAND**,
1925, 64, 59
- and **Sandberg, Marta.** The lability of the sulfur in cystine derivatives and its possible bearing on the constitution of insulin,
1926, 70, 381
- Brekke, Viola.** See **OUTHOUSE**, **MACY**, **BREKKE**, and **GRAHAM**,
1927, 73, 203
- Briggs, A. P.** A colorimetric method for the determination of homogentisic acid in urine,
1922, 51, 453
- A colorimetric method for the determination of small amounts of magnesium,
1922, 52, 349
- A modification of the Bell-Doisy phosphate method,
1922, 53, 13
- See **DOISY**, **BRIGGS**, **EATON**, and **CHAMBERS**,
1922, 54, 305
- A study of the inorganic elements of blood plasma,
1923, 57, 351
- , **Koechig, Irene**, **Doisy, Edward A.**, and **Weber, Clarence J.** Some changes in the composition of blood due to the injection of insulin,
1923-24, 58, 721
- Some applications of the colorimetric phosphate method,
1924, 59, 255
- See **DOISY**, **BRIGGS**, **WEBER**, and **KOECHIG**,
1925, 63, xlviii
- See **BISHOP**, **BRIGGS**, and **RONZONI**,
1925, 66, 77
- See **WEBER**, **BRIGGS**, and **DOISY**,
1925, 66, 653
- Some observations bearing on the rôle of acetaldehyde in animal metabolism,
1926-27, 71, 67
- Brocklehurst, R. J.**, and **Henderson, Yandell.** The buffering of the tissues as indicated by the carbon dioxide capacity of the body,
1927, 72, 665
- Brough, G. A.** See **McGUIGAN** and **BROUGH**,
1923-24, 58, 415
- Brown, Elmer B.** See **JOHNSON** and **BROWN**,
1922, 54, 721, 731
- and **Johnson, Treat B.** The analysis of tuberculinic acid,
1923, 57, 199
- Brown, Herman.** The determination of uric acid in blood,
1926, 68, 123
- The mineral content of human, dog, and rabbit skin,
1926, 68, 729
- The mineral content of human skin,
1927, 75, 789
- Brown, J. B.**, and **Balls, A. K.** Studies in yeast metabolism. II. Carbon dioxide and alcohol,
1924-25, 62, 823
- See **BALLS** and **BROWN**,
1924-25, 62, 789
- See **LEE** and **BROWN**,
1927, 73, 69
- Brown, Minerva.** See **MACY**, **OUTHOUSE**, **LONG**, **BROWN**, **HUNSCHER**, and **HOEBLER**,
1927, 74, xxxi
- Brown, W. Easson.** See **LUCAS**, **BROWN**, and **HENDERSON**,
1927, 74, lxxix
- Brunquist, E. H.** See **KOEHLER**, **BRUNQUIST**, and **LOEVENHART**,
1923, 55, ix

- Brunquist, E. H.—*continued*.
 —. See SCHNELLER, BRUNQUIST, and LOEVENHART, 1923, 55, iii
 —, Schneller, E. J., and Loevenhart, A. S. The effects of anoxemia on nitrogen metabolism, 1924-25, 62, 93
 —. See KOEHLER, BRUNQUIST, and LOEVENHART, 1925, 64, 313
 Buchwald, K. W. See REINHARD and BUCHWALD, 1927, 73, 383
 Buckner, G. Davis, Martin, J. H., Pierce, W. C., and Peter, A. M. Calcium in egg-shell formation, 1922, 51, 51
 — and Peter, A. M. The mineral content of the normal white rat during growth, 1922, 54, 5
 Buell, Mary V. On the phosphorus compounds in normal blood, 1923, 56, 97
 — and Perkins, Marie E. Crystalline guanine nucleotide, 1927, 72, 21
 — and —. Oxyadenine, 1927, 72, 745
 Bulger, Harold A. See PETERS, BULGER, and EISENMAN, 1923, 55, 687
 —. See PETERS, EISENMAN, and BULGER, 1923, 55, 709
 —. See PETERS, BULGER, and EISENMAN, 1923-24, 58, 747, 769, 773
 —. See EISENMAN, BULGER, and PETERS, 1926, 67, 159
 —. See PETERS, BULGER, and EISENMAN, 1926, 67, 165
 —. See PETERS, BULGER, EISENMAN, and LEE, 1926, 67, 141, 175, 219
 Bulmer, Frederick M. R., Eagles, Blythe Alfred, and Hunter, George. Uric acid determinations in blood, 1925, 63, 17
 Bunting, R. W. See MCCOLLUM, SIMMONDS, BECKER, and BUNTING, 1925, 63, 553
 Burge, W. E., and Wickwire, George C. The decrease in sugar metabolism and destruction of insulin by ultra-violet radiation, 1927, 72, 827
 —, —, Estes, A. M., and Williams, Maude. A study of the stimulating effect of the amino acids on sugar metabolism with respect to their optical activity, 1927, 74, 235
 Burke, A. D. See HELLER and BURKE, 1927, 74, 85
 Burr, George O. See EVANS and BURR, 1927, 74, lxxii
 Burrell, Robin C., and Phillips, Thomas G. The determination of nitrate nitrogen in plants, 1925, 65, 229
 Burt, K. L. See ROBINSON and HUFFMAN, 1926, 67, 257
 —. See HUFFMAN and ROBINSON, 1926, 69, 101
 —. See ROBINSON, HUFFMAN, and BURT, 1927, 73, 477
 Burtis, M. P. See QUINN, BURTIS, and MILNER, 1927, 72, 557
 Burton, G. W. See SHERMAN and BURTON, 1926, 70, 639

- Cahan, Meyer H.** See KOCH, CAHAN, and GUSTAVSON, 1926, 67, lii
- Cajori, F. A.** The use of iodine in the determination of glucose, fructose, sucrose, and maltose, 1922, 54, 617
- , **Crouter, C. Y., and Pemberton, Ralph.** The effect of therapeutic application of external heat on the acid-base equilibrium of the body, 1923, 57, 217
- and —. A comparison of the rate of glycolysis in different bloods with special reference to diabetic blood, 1924, 60, 765
- , —, and **Pemberton, Ralph.** The effect of changes in the circulation on carbohydrate utilization, 1925, 66, 89
- and **Pemberton, Ralph.** Observations on the chemical composition of synovial fluid, 1927, 74, xxii
- Cake, W. E., and Bartlett, H. H.** The carbohydrate content of the seed of *Asparagus officinalis* L., 1922, 51, 93
- Caldwell, Mary L.** A study of the influence of the new sulfur-containing amino acid (Mueller) on the activity of pancreatic amylase, 1924, 59, 661
- Calvery, H. O.** The preparation of adenine nucleotide from tea leaves, 1926, 68, 593
- The action of sodium carbonate on yeast nucleic acid, 1927, 72, 27
- The chemistry of tea leaves. II. The isolation of guanine nucleotide and cytosine nucleotide, 1927, 72, 549
- A note on the enzyme uricase, 1927, 73, 77
- and **Jones, Walter.** The nitrogenous groups of nucleic acid, 1927, 73, 73
- and **Remsen, D. B.** The nucleotides of triticonucleic acid, 1927, 73, 593
- Calvin, Dea B.** See HENDRIX and CALVIN, 1925, 65, 197
- See HENDRIX, FAY, CALVIN, and BODANSKY, 1926, 69, 449
- Camack, J. G.** See AUSTIN, SUNDERMAN, and CAMACK, 1926, 70, 427
1927, 72, 677
- Camargo, T. de A.** The presence of vernine (guanosine) in the green leaves and berries of the coffee tree (*Coffea arabica* L.) and its relation to the origin of caffeine in this plant, 1923-24, 58, 831
- Cameron, A. T., and Moorhouse, V. H. K.** The tetany of parathyroid deficiency and the calcium of the blood and cerebrospinal fluid, 1925, 63, 687
- Cammack, M. L.** See SHERMAN and CAMMACK, 1926, 68, 69
- Campbell, H. L.** See SHERMAN and CAMPBELL, 1924, 59, xlv
1924, 60, 5
- Campbell, Walter R.** The quantitative determination of dihydroxyacetone, 1926, 67, 59

- Campbell, Walter R.—*continued*.
- , Fletcher, A. A., Hepburn, John, and Markowitz, J. Dihydroxyacetone metabolism, 1926, 67, lvii
- and Hepburn, John. The effect of dihydroxyacetone on insulin hypoglycemia, 1926, 68, 575
- and Hanna, M. I. The estimation of fructose, sucrose, and inulin, 1926, 69, 703
- . The detection and estimation of sulfhemoglobin, 1927, 74, lvi
- Cannon, Helen C. See OSBORNE and MENDEL, 1922, 54, 739
1923-24, 58, 363
1924, 59, 13, 339
1925, 63, 233
1926, 69, 661
- . See OSBORNE, MENDEL, PARK, and WINTERNITZ, 1926-27, 71, 317
- . See MENDEL and CANNON, 1927, 75, 779
- Cappel, Powel B. See GRIF-FITH and CAPPEL, 1925, 66, 683
- Carey, Elizabeth. See SMITH and CAREY, 1923-24, 58, 425
- Carman, G. G. See MITCHELL and CARMAN, 1924, 60, 613
1926, 68, 165, 183
- Carman, J. S. See MATTILL, CARMAN, and CLAYTON, 1924, 61, 729
- Carpenter, D. C. The influence of hydrogen ion concentration and of temperature on the hydrolytic scission of casein, 1926, 67, 647
- Carpenter, Thorne M. A gas analysis apparatus for use with chamber respiration apparatus. A demonstration, 1923, 55, xix
- . The urinary sulfur of fasting steers, 1923, 55, iii
- and Fox, Edward L. A gas analysis apparatus modified for the determination of methane in metabolism experiments, 1926, 70, 115
- and —. Absence of stratification and rapidity of mixing of carbon dioxide in air samples, 1927, 73, 379
- Carrick, Carey W., and Hauge, Sigfred M. Presence of the antiscorbutic substance in the livers of chickens fed on scorbutic diets, 1925, 63, 115
- . See HAUGE and CARRICK, 1925, 64, 111
1926, 69, 403
- Carter, E. G. See GREAVES and CARTER, 1923-24, 58, 531
- Carter, Kenneth L. See CLARK and CARTER, 1927, 73, 391
- Cartland, George F., and Hart, Merrill C. The chemical investigations of corpus luteum. IV. The acetone-soluble fat, 1925, 66, 619
- Cary, C. A. The free tryptophane in cow's blood and its utilization by the mammary gland, 1926, 67, xl
- . The use of the Hopkins-Cole glyoxylic acid reagent for the quantitative deter-

- mination of free tryptophane in blood,
1926, 67, xxxix
- van Caulaert, C. See DILL, VAN CAULAERT, HURXTHAL, STODDARD, BOCK, and HENDERSON,
1927, 73, 251
- See DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK, 1927, 74, 303
- See HENDERSON, DILL, VAN CAULAERT, FÖLLING, and COOLIDGE,
1927, 74, xxxvi
- See HENDERSON, BOCK, DILL, HURXTHAL, and VAN CAULAERT, 1927, 75, 305
- Cave, H. W. See HUGHES, FITCH, CAVE, and RIDDELL,
1926-27, 71, 309
- Cavins, A. W. The effect of fasting (and refeeding) on the calcium and inorganic phosphorus in blood serums of normal and rachitic rats,
1924, 59, 237
- Cerecedo, Leopold R., and Sherwin, Carl P. Comparative metabolism of certain aromatic acids. V. Fate of some ring substitution products of phenylacetic acid in the organisms of the dog, rabbit, and man,
1923-24, 58, 215
- and —. VII. Fate of *p*-chloro, *p*-bromo, and *p*-amino acids in the dog, the rabbit, and man,
1924-25, 62, 217
- See MUENZEN, CERECEDO, and SHERWIN,
1925, 63, xvi
1926, 67, 469
1926, 68, 503
- See ADELIN. CERECEDO. and SHERWIN,
1926, 70, 461
- Studies on the physiology of pyrimidines,
1927, 75, 661
- Chaikoff, I. L., Macleod, J. J. R., and Markowitz, J. Further data on the metabolism of depancreatized dogs kept alive with insulin,
1925, 63, lxxi
- See GEE and CHAIKOFF,
1926, 70, 151
- and Macleod, J. J. R. The effect of insulin on the respiratory exchange of fed and fasting rabbits,
1927, 73, 725
- Observations on the ketone body excretion, the dextrose to nitrogen ratios, and the glycogen content of liver and muscles of fasted, depancreatized dogs,
1927, 74, 203
- Chambers, William H. See DOISY, BRIGGS, EATON, and CHAMBERS,
1922, 54, 305
- The hydrogen ion concentration of the blood in carcinoma. I. From the colorimetric determination of the blood dialysate,
1923, 55, 229
- and Kleinschmidt, R. E. The hydrogen ion concentration of the blood in carcinoma. II. From the carbon dioxide-bicarbonate ratio,
1923, 55, 257
- See DEUEL and CHAMBERS,
1925, 63, xxii
- and Deuel, Harry J., Jr. Animal calorimetry. XXX. The metabolism of glycerol in phlorhizin diabetes,
1925, 65, 21

- Chambers, William H.**—*continued.*
- See DEUEL and CHAMBERS, 1925, 65, 7
 - See DEUEL, CHAMBERS, and MILHORAT, 1926, 69, 249
 - , Deuel, Harry J., Jr., and Milhorat, Adolph T. Animal calorimetry. XXXVI. The effect of insulin on the metabolism of dogs under amytal anesthesia, 1927, 75, 423
 - Chaney, Margaret S., and Blunt, Katharine.** The effect of orange juice on the calcium, phosphorus, magnesium, and nitrogen retention and urinary organic acids of growing children, 1925, 66, 829
1926, 67, xxxi
 - Channon, H. J.** See DRUMMOND, CHANNON, and COWARD, 1926, 67, p.1
 - Chanutin, Alfred.** The fate of creatine when administered to man, 1926, 67, 29
 - A study of the effect of creatine on growth and its distribution in the tissues of normal rats, 1927, 74, xxi
1927, 75, 549
 - See ROSE, HELMER, and CHANUTIN, 1927, 75, 543
 - Chapman, L. M., Greenberg, David M., and Schmidt, Carl L. A.** Studies on the nature of the combination between certain acid dyes and proteins, 1927, 72, 707
 - Chen, K. K., and Bradley, H. C.** Studies of autolysis. X. The autolysis of muscle, 1924, 59, 151
 - , Meek, Walter, and Bradley, H. C. Studies of autolysis. XII. Experimental atrophy of muscle tissue, 1924, 61, 807
 - Chen, T. C.** See MAYNARD, FRONDA, and CHEN, 1923, 55, 145
 - Chernoff, Lewis H.** See JOHNS, CHERNOFF, and VIEHOEVER, 1922, 52, 335
 - Chibnall, Albert Charles.** A new method for the separate extraction of vacuole and protoplasmic material from leaf cells, 1923, 55, 333
 - Spinacin, a new protein from spinach leaves, 1924, 61, 303
 - and Nolan, Laurence S. A protein from the leaves of the alfalfa plant, 1924-25, 62, 173
 - and —. A protein from the leaves of *Zea mays*, 1924-25, 62, 179
 - Chou, T. Q.** The preparation and properties of ephedrine and its salts, 1926, 70, 109
 - Chouke, K. S.** See DOISY, EATON, and CHOUKE, 1922, 53, 61
 - Chown, H. Bruce.** See HOLT, LA MER, and CHOWN, 1925, 64, 509, 567
 - Christman, A. A., and Lewis, Howard B.** Biochemical studies on allantoin. I. The influence of amino acids on the excretion of allantoin by the rabbit, 1923, 57, 379

- A method for the determination of allantoin in rabbit urine,
1926, 70, 173
- and Eckstein, Henry C. Purine metabolism. I. The distribution of uric acid in the blood and lymph of the dog following the intravenous injection of uric acid,
1927, 75, 201
- Church, Margaret B. See MAY, HERRICK, THOM, and CHURCH, 1927, 75, 417
- Ciocalteu, Vintila. See FOLIN and CIOCALTEU, 1927, 73, 627
- Clark, E. P. Note on the preparation of mannose,
1922, 51, 1
- The structure of fucose,
1922, 54, 65
- and Collip, J. B. A study of the Tisdall method for the determination of blood serum calcium with a suggested modification,
1925, 63, 461
- See COLLIP, CLARK, and SCOTT, 1925, 63, 439
- See COLLIP and CLARK, 1925, 64, 485
1925, 66, 133
- and Collip, J. B. A procedure for the determination of urea in Folin-Wu blood filtrates by the autoclave method,
1926, 67, 621
- See COLLIP and CLARK, 1926, 67, 679
- Studies on gossypol. I. The preparation, purification, and some of the properties of gossypol, the toxic principle of cottonseed,
1927, 75, 725
- Clark, George L., and Mann, William A. A quantitative study of the adsorption in solution and at interfaces of sugars, dextrin, starch, gum arabic, and egg albumin, and the mechanism of their action as emulsifying agents,
1922, 52, 157
- Clark, Guy W. See SCHMIDT and CLARK, 1922, 53, 193
- Mineral metabolism of adult man,
1925, 63, xxviii
- Acid- and base-forming elements in foods,
1925, 65, 597
- and Sharp, Paul W. The properties and composition of oocytin. II.
1925, 66, 123
- See UPDEGRAFF, GREENBERG, and CLARK, 1926-27, 71, 87
- Acid- and base-forming elements in foods. A correction,
1927, 73, 389
- and Carter, Kenneth L. Factors involved in the reaction changes of human saliva,
1927, 73, 391
- Clark, Marjorie. See MALLON and CLARK, 1922, 54, 763
- Clark, William Mansfield, Cohen, Barnett, Gibbs, H. D., and Sullivan, M. X. Studies on oxidation-reduction equilibria in systems of organic compounds,
1924, 59, xxi
- , —, and —. An interpretation of the biological reduction of methylene blue,
1925, 63, liv

- Clark, William Mansfield.— *continued.*
- , —, and —. On biochemical color reactions with benzidine, *p*-phenylene diamine, etc., 1926, 67, x
- Clausen, S. W. A method for the determination of small amounts of lactic acid, 1922, 52, 263
- . Studies in parenchymatous nephritis, 1924, 59, xlv
- Clayton, Mary M. See MATTILL, CARMAN, and CLAYTON, 1924, 61, 729
- . See MATTILL and CLAYTON, 1925, 63, xxvii
1926, 67, xlix
1926, 68, 665
- . The influence of diets containing unsaturated animal fats on reproduction and lactation in the rat, 1927, 74, lxxiv
- Clough, George William. Configurational relationships of 2-hydroxybutyric and lactic acids. A reply, 1927, 75, 489
- Clough, Harry D., Stokes, Arthur M., Gibbs, C. B. F., Stone, Neil C., and Murlin, John R. The influence of pancreatic perfusates on the blood sugar, D : N ratio, and respiratory quotient of depancreatized animals, 1923, 55, xxx
- . See MURLIN, CLOUGH, GIBBS, and STOKES, 1923, 56, 253
- Clowes, G. H. A., and Smith, Homer A. The influence of carbon dioxide on the velocity of segmentation of sea urchin eggs, 1923, 55, xix
- and Walden, Eda B. On specific sperm agglutinins, 1925, 63, lxiv
- Coghill, Robert D. See JOHNSON and COGHILL, 1925, 63, 225
- . The chemical study of bacteria. XII. The albumin-globulin fraction of the tubercle bacillus, 1926, 70, 439
- . XIII. The alkali-soluble protein of the tubercle bacillus, 1926, 70, 449
- Cohen, Barnett. See CLARK, COHEN, GIBBS, and SULLIVAN, 1924, 59, xxi
- . See CLARK, COHEN, and GIBBS, 1925, 63, liv
1926, 67, x
- Cohen, Harriet R. See KUTTNER and COHEN, 1927, 75, 517
- Cohn, David J. See NELSON and COHN, 1924, 61, 193
- Cohn, Edwin J. A physico-chemical method of characterizing proteins. IV, 1923, 55, xlv
- V, 1924, 59, iv
- VI, 1924, 59, vii
- VII. The molecular weights of the proteins, 1925, 63, xv
- , Hendry, Jessie L., and Prentiss, Adela M. Studies in the physical chemistry of the proteins. V. The molecular weights of the proteins. Part 1. The minimal molecular weights of certain proteins, 1925, 63, 721
- , Minot, George R., Fulton, John F., Ulrichs, Hermann F., Sargent, Florence C., Weare, John H., and Murphy, William P. The nature of

- the material in liver effective in pernicious anemia. I, 1927, 74, lxi
- Cole, William H. The pyridine test as a quantitative method for the estimation of minute amounts of chloroform, 1926-27, 71, 173
- Collens, William S. The blood supply to the pancreas with some perfusion studies, 1925, 64, 461
- Collett, Mary E. The specificity of the intracellular hydrogenases in frog's muscle, 1923-24, 58, 793
- Collins, Arnold M. See JACOBS and COLLINS, 1924, 59, 713
1924, 61, 387
1925, 63, 123
1925, 64, 383
1925, 65, 491
- Collip, J. B. The demonstration of an insulin-like substance in the tissues of the clam (*Mya arenaria*), 1923, 55, xxxix
- The occurrence of ketone bodies in the urine of normal rabbits in a condition of hypoglycemia following the administration of insulin. A condition of acute acidosis experimentally produced, 1923, 55, xxxviii
- The original method as used for the isolation of insulin in semipure form for the treatment of the first clinical cases, 1923, 55, xl
- Glucokinin. A new hormone present in plant tissue. Preliminary paper, 1923, 56, 513
- II, 1923, 57, 65
- III. An apparent synthesis in the normal animal of a hypoglycemia-producing principle. Animal passage of the principle, 1923-24, 58, 163
- The extraction of a parathyroid hormone which will prevent or control parathyroid tetany and which regulates the level of blood calcium, 1925, 63, 395
- , Clark, E. P., and Scott, J. W. The effect of a parathyroid hormone on normal animals, 1925, 63, 439
- See CLARK and COLLIP, 1925, 63, 461
- and Clark, E. P. Further studies on the physiological action of a parathyroid hormone. I, 1925, 64, 485
- and —. Further studies on the parathyroid hormone. II, 1925, 66, 133
- and —. Concerning the relation of guanidine to parathyroid tetany, 1926, 67, 679
- See CLARK and COLLIP, 1926, 67, 621
- Some effects of asphyxia on blood chemistry, 1927, 74, xxviii
- Colwell, A. R. Insulin and phlorhizin glycosuria, 1924, 61, 289
- Conant, James B. An electrochemical study of hemoglobin, 1923, 57, 401
- and Fieser, Louis F. Methemoglobin, 1924-25, 62, 595

Conant, James B.—*continued.*

— and —. A method for determining methemoglobin in the presence of its cleavage products,

1924-25, 62, 623

— and Scott, Norman D. The adsorption of nitrogen by hemoglobin,

1926, 68, 107

— and —. The so called oxygen content of methemoglobin,

1926, 69, 575

Congdon, C. C. See MATTILL and CONGDON,

1924, 59, xii

Cook, Donald H. Temperature coefficients of enzymic activity and the heat destruction of pancreatic and malt amylases,

1925, 65, 135

Cook, Kenneth G. See ROSE and COOK,

1925, 63, xvii

1925, 64, 325

Coolidge, Thomas B. See REDFIELD, COOLIDGE, and HURD,

1926, 69, 475

— See BOCK, DILL, HURXTHAL, LAWRENCE, COOLIDGE, DAILEY, and HENDERSON,

1927, 73, 749

— See HENDERSON, DILL, VAN CAULAERT, FÖLLING, and COOLIDGE,

1927, 74, xxxvi

Cori, Carl F. See PUCHER and CORI,

1922, 54, 567

— The influence of insulin and epinephrine on the lactic acid content of blood and tissues,

1925, 63, liii, 253

— and Cori, Gerty T. The carbohydrate metabolism of tumors. I. The free sugar, lactic acid, and glycogen content of malignant tumors,

1925, 64, 11

— and —. II. Changes in the sugar, lactic acid, and carbon dioxide-combining power of blood passing through a tumor,

1925, 65, 397

— The fate of sugar in the animal body. I. The rate of absorption of hexoses and pentoses from the intestinal tract,

1925, 66, 691

— and Cori, Gerty T. A quantitative analysis of the fate of sugar in the animal body,

1926, 67, xlvii

— The fate of sugar in the animal body. III. The rate of glycogen formation in the liver of normal and insulinized rats during the absorption of glucose, fructose, and galactose,

1926, 70, 577

— and Cori, Gerty T. The fate of sugar in the animal body. II. The relation between sugar oxidation and glycogen formation in normal and insulinized rats during the absorption of glucose,

1926, 70, 557

— and —. IV. The tolerance of normal and insulinized rats for intravenously injected glucose and fructose,

1927, 72, 597

— See CORI and CORI,

1927, 72, 615

1927, 73, 555

— and Cori, Gerty T. The fate of glucose in adrenalectomized rats,

1927, 74, p.1

— and —. The fate of sugar in the animal body. VII. The carbohydrate metabolism of adrenalectomized rats and mice,

1927, 74, 473

- Cori, Gerty T. See CORI and CORI,
1925, 64, 11
1925, 65, 397
1926, 67, xlvii
1926, 70, 557
- and Cori, Carl F. The fate of sugar in the animal body. V. A seasonal occurrence of ketonuria in fasting rats accompanied by changes in carbohydrate metabolism,
1927, 72, 615
- See CORI and CORI,
1927, 72, 597
- and Cori, Carl F. The fate of sugar in the animal body. VI. Sugar oxidation and glycogen formation in normal and insulinized rats during the absorption of fructose,
1927, 73, 555
- See CORI and CORI,
1927, 74, p. 1, 473
- Corley, Ralph C. See LEWIS and CORLEY,
1923, 55, 373
- and Denis, W. The determination of calcium in tissues, feces, and milk,
1925, 66, 601
- See DENIS and CORLEY,
1925, 66, 609
- Amino acid catabolism. I. The fate of γ -amino butyric acid and δ -amino valeric acid in the phlorhizinized dog,
1926, 70, 99
- Pentose metabolism. I. The disposal of intravenously administered xylose in the rabbit,
1926, 70, 521
- Factors in the metabolism of lactose. I. The disposal of intravenously administered galactose in the rabbit,
1927, 74, 1
- II. The effect of glucose and galactose on the disposal of intravenously administered galactose in the rabbit,
1927, 74, 19
- Cotonio, Margherita. See DAVENPORT and COTONIO,
1927, 73, 359, 463
- See FRIEDEMANN, COTONIO, and SHAFFER,
1927, 73, 335
- Coward, Katharine H. See DRUMMOND, CHANNON, and COWARD,
1926, 67, p. 1
- The influence of light and heat on the formation of vitamin A in plant tissues,
1927, 72, 781
- See STEENBOCK and COWARD,
1927, 72, 765
- Cowgill, George R. An improved procedure for metabolism experiments,
1923, 56, 725
- , Deuel, Harry J., Jr., and Smith, Arthur H. Quantitative aspects of the relation between vitamin B and appetite,
1924, 59, xi
- , Smith, Arthur H., and Beard, Howard H. Quantitative aspects of the function of vitamin B in several species,
1925, 63, xxiii
- See SMITH, COWGILL, and CROLL,
1925, 66, 15
- A relation between appetite and the energy factor in nutrition: a practical consideration,
1926, 67, liii
- Cox, Gerald J. See ROSE and COX,
1924, 59, xiv
1924, 61, 747
- and Rose, William C. Can other imidazoles replace histidine in the diet for purposes of growth?
1926, 67, iii

Cox, Gerald J.—*continued.*

- and —. The availability of synthetic imidazoles in supplementing diets deficient in histidine, 1926, 68, 781
 — and —. Can purines, creatinine, or creatine replace histidine in the diet for purposes of growth? 1926, 68, 769

— See ROSE and COX, 1926, 68, 217

Creighton, Mattie. See DUTCHER, CREIGHTON, and ROTHROCK, 1925, 66, 401

Crist, John W. See DYE, MEDLOCK, and CRIST, 1927, 74, 95

Crocker, Josephine. See SHERMAN and CROCKER, 1922, 53, 49

Croll, Hilda M. See SMITH, COWGILL, and CROLL, 1925, 66, 15

Crouter, C. Y. See CAJORI, CROUTER, and PEMBERTON, 1923, 57, 217

— See CAJORI and CROUTER, 1924, 60, 765

— See CAJORI, CROUTER, and PEMBERTON, 1925, 66, 89

Crowdle, James H., and Sherwin, Carl P. The chemical defence mechanism of the fowl, 1923, 55, 15

— and —. Synthesis of amino acids in the animal organism. II. The synthesis of ornithine in the body of the fowl, 1923, 55, 365

— and —. Synthesis of ornithine in the fowl, 1923, 55, iv

Csapo, Joseph. The influence

of proteins on the solubility of calcium phosphate, 1927, 75, 509

Csonka, Frank A., and Taggart, Grace C. Note on the reliability of the Benedict and Folin-Wu blood sugar determinations, 1922, 54, 1

— Animal calorimetry. XXVII. On the administration of various proteins with benzoic acid to a pig, 1924, 60, 545

— See RAPPORT, WEISS, and CSONKA, 1924, 60, 583

— See JONES and CSONKA, 1925, 64, 673
 1926, 67, ix

— and Jones, D. Breese. Studies on glutelins. I. The α - and β -glutelins of wheat (*Triticum vulgare*), 1927, 73, 321

— and —. Studies on glutelins, 1927, 74, liv

— See JONES and CSONKA, 1927, 74, 427

— Studies on glutelins. III. The glutelin of oats (*Avena sativa*), 1927, 75, 189

Cullen, Glenn E. A modification of the Clark hydrogen electrode vessel to permit accurate temperature control, 1922, 52, 521

— Studies of acidosis. XIX. The colorimetric determination of the hydrogen ion concentration of blood plasma, 1922, 52, 501

— and Hastings, A. Baird. A comparison of colorimetric and electrometric determinations of hydrogen ion concentrations in solutions containing carbon dioxide, 1922, 52, 517

- See VAN SLYKE, AUSTIN,
and CULLEN,
1922, 53, 277
- See AUSTIN, CULLEN,
HASTINGS, MCLEAN, PETERS,
and VAN SLYKE,
1922, 54, 121
- See PETERS, CULLEN, and
AUSTIN, 1922, 54, 149
- and Austin, J. Harold. A
note on the initial acidosis
occurring with anesthesia,
1923, 55, xlii
- , —, Kornblum, K., and
Robinson, Howard W. The
initial acidosis in anesthesia,
1923, 56, 625
- and Jonas, Leon. The effect
of insulin treatment on the
hydrogen ion concentration
and alkali reserve of the
blood in diabetic acidosis,
1923, 57, 541
- and Robinson, Howard W.
The normal variations in
plasma hydrogen ion concen-
tration, 1923, 57, 533
- See GRAM and CULLEN,
1923, 57, 477
- See AUSTIN, CULLEN,
GRAM, and ROBINSON,
1924, 61, 829
- and Büllmann, Einar. The
use of the quinhydrone elec-
trode for hydrion concentra-
tion determination on serum,
1925, 64, 727
- See DRUCKER and
CULLEN, 1925, 64, 221
- , Keeler, H. R., and Robin-
son, Howard W. The pK'
of the Henderson-Hasselbalch
equation for hydrion concen-
tration of serum,
1925, 66, 301
- Cutter, Lois. See MOOR-
HEAD, SCHMITZ, CUTTER, and
MYERS, 1923, 55, xiii

D

- Dahle, Chester D. See
HONEYWELL, DUTCHER, and
DAHLE,
1927, 74, lxxvii
- See DUTCHER, HONEY-
WELL, and DAHLE,
1927, 75, 85
- Dailey, Mary Elizabeth. See
FREMONT-SMITH and DAILEY,
1926, 70, 779
- See BOCK, DILL, HURX-
THAL, LAWRENCE, COOLIDGE,
DAILEY, and HENDERSON,
1927, 73, 749
- Dakin, H. D. The action of
muscle tissue on fumaric,
maleic, glutaconic, and malic
acids, 1922, 52, 183
- and Harington, Charles
Robert. The action of am-
monium cyanide on dike-
tones, 1923, 55, 487
- Experiments on the
catabolism of caproic acid
and its derivatives,
1923, 56, 43
- The resolution of inactive
malic acid into optically
active forms,
1924, 59, 7
- The formation of *l*-malic
acid as a product of alcoholic
fermentation by yeast,
1924, 61, 139
- A note on the presence of
valine in zein,
1924, 61, 137
- Notes on the metabolism
of amino and fatty acids,
1926, 67, 340
- See BENEDICT, DAKIN,
and WEST, 1926, 68, 1
- See NEWTON, BENEDICT,
and DAKIN,
1927, 72, 367

- Damon, Samuel R. Some observations in regard to growth-promoting substances of bacterial origin, 1923, 56, 895
- Daniels, Amy L., and Stearns, Genevieve. The effect of heat treatment of milk feedings on the mineral metabolism of infants, 1924, 61, 225
- and Hutton, Mary K. Mineral deficiencies of milk as shown by growth and fertility of white rats, 1925, 63, 143
- Daschavsky, P. G. See JOHNSON and DASCHAVSKY, 1924-25, 62, 197, 725
- Dauphinee, James A. See HUNTER and DAUPHINEE, 1925, 63, xxxix
- Davenport, H. A. On liver amylase and its probable rôle in the regulation of blood sugar, 1926, 70, 625
- and Cotonio, Margherita. A condenser unit for use in the determination of lactic acid, 1927, 73, 359
- and —. Lactic acid formation in muscle extract, 1927, 73, 463
- Davidson, David, and Baudisch, Oskar. The oxidation of isobarbituric acid. A new class of indigoids, 1925, 64, 619
- See BAUDISCH and DAVIDSON, 1925, 64, 233
- 1926-27, 71, 497, 501
- 1927, 75, 247
- Davis, Alice Rohde, Newton, Eleanor B., and Benedict, Stanley R. The combined uric acid in beef blood, 1922, 54, 595
- See NEWTON and DAVIS, 1922, 54, 601, 603
- See BENEDICT, NEWTON, and BEHRE, 1926, 67, 267
- Davis, Russell E. The nitrogenous constituents of hen urine, 1927, 74, 509
- Davison, Wilburt C. See MASLOW and DAVISON, 1926, 68, 75, 83, 95
- Day, Harold A. See YOUNGBURG and PUCHER, 1924-25, 62, 31
- Deas, J. Yeast growth-promoting vitamin tested for its effects on animals, 1924, 61, 5
- De Eds, F., and Hanzlik, P. J. A simple micro vessel with electrode for estimating the hydrogen ion concentration of blood and other body fluids, 1924, 60, 355
- DeLong, W. A. Note on the effect of potassium iodide in the Shaffer-Hartmann micro sugar reagent, 1927, 72, 731
- Denis, W. The determination of magnesium in blood, plasma, and serum, 1922, 52, 411
- and von Meysenbug, L. Note on a possible source of error in the Bell-Doisy method for the determination of phosphates in blood plasma, 1922, 52, 1
- The non-protein organic constituents in the blood of marine fish, 1922, 54, 693
- On the selective action of the kidney as regards the excretion of inorganic salts, 1923, 55, 171

- and **Hobson, S.** A study of the inorganic constituents of the blood serum in nephritis, 1923, 55, 183
- A study of the inorganic constituents of the blood in experimental nephritis, 1923, 56, 473
- and **Giles, Upton.** On glycolysis in diabetic and non-diabetic blood, 1923, 56, 739
- and **von Meysenbug, L.** Alkalosis *versus* abnormal sodium ion concentration as a cause of tetany, 1923, 57, 47
- See **HUME** and **DENIS**, 1924, 59, 457
- and **Hume, H. V.** On the nature of blood sugar, 1924, 60, 603
- See **HUME, DENIS, SILVERMAN**, and **IRWIN**, 1924, 60, 633
- and **Borgstrom, P.** A study of the effect of temperature on protein intake, 1924, 61, 109
- and **Leche, Stella.** A method for the determination of total sulfates in tissues, 1925, 65, 561
- and —. On the distribution of injected sulfates in tissues, 1925, 65, 565
- and **Corley, Ralph C.** A study of the effect of excessive calcium ingestion on the calcium content of tissues with and without the application of ultra-violet light, 1925, 66, 609
- See **CORLEY** and **DENIS**, 1925, 66, 601
- and **Reed, Lucille.** Methods for the determination of some of the non-protein sulfur compounds of blood, 1926-27, 71, 191
- and —. Nephelometric methods for the determination of some sulfur compounds in urine, 1926-27, 71, 205
- and —. The action of blood on sulfides, 1927, 72, 385
- and —. Concerning the effect produced by the administration of sulfur on the concentration of certain sulfur compounds in blood and urine, 1927, 73, 51
- and —. A study of the influence of kidney function on the concentration of certain non-protein sulfur compounds in the blood, 1927, 73, 41
- See **REED** and **DENIS**, 1927, 73, 623
- Derick, Clifford.** See **FOLIN, BERGLUND**, and **DERICK**, 1924, 60, 361
- De Toni, G. M.** The colorimetric estimation of cholesterol and lecithin in blood in connection with Folin and Wu's system of blood analysis, 1926, 70, 207
- Deuel, Harry J., Jr.** See **LANGWORTHY** and **DEUEL**, 1922, 52, 251
- See **COWGILL, DEUEL**, and **SMITH**, 1924, 59, xi
- The metabolism of some pyrimidines, 1924, 60, 749
- and **Chambers, William H.** The rate of elimination of various ingested monosaccharides in phlorhizin diabetes, 1925, 63, xxii

Deuel, Harry J., Jr.—*continued*.

— and —. The rate of elimination of ingested sugars in phlorhizin diabetes,

1925, 65, 7

— See CHAMBERS and DEUEL, 1925, 65, 21

—, Sandiford, Kathleen, Sandiford, Irene, and Boothby, Walter M. Deposit protein: The effect of thyroxin on the deposit protein after reduction of the nitrogen excretion to a minimal level by a prolonged protein-free diet,

1926, 67, xxiii

— See SANDIFORD, SANDIFORD, DEUEL, and BOOTHBY, 1926, 67, xxiv

—, Waddell, S. S., and Mandell, J. A. Animal calorimetry. XXXII. The physiological behavior of glucosane,

1926, 68, 801

—, Chambers, William H., and Milhorat, Adolph T. Animal calorimetry. XXXIII. The influence of amytal upon the metabolism of the dog,

1926, 69, 249

— See PLUMMER, DEUEL, and Lusk,

1926, 69, 339

—, Milhorat, Adolph T., and Sweet, Joshua E. The action of phlorhizin in nephrectomized dogs,

1927, 74, xl

—, Wilson, H. Ellis C., and Milhorat, Adolph T. Animal calorimetry. XXXV. On the mechanism of phlorhizin diabetes,

1927, 74, 265

— The respiratory metabolism following the adminis-

tration of various carbohydrates,

1927, 75, 367

— See CHAMBERS, DEUEL, and MILHORAT,

1927, 75, 423

Dienes, L. Further studies on the determination of calcium, magnesium, and phosphorus in animal substances,

1924, 61, 77

— A note on the gravimetric microchemical technique,

1924, 61, 73

Dill, D. B., and Alsberg, C. L. A modification of the method of preparing gliadin,

1925, 63, lxxvii

— and —. The specific rotation of gliadin in EtOH-H₂O solutions,

1925, 63, lxxviii

— and —. Preparation, solubility, and specific rotation of wheat gliadin,

1925, 65, 279

— The behavior of the prolamins in mixed solvents. II,

1927, 72, 239

—, van Caulaert, C., Hurxthal, L. M., Stoddard, James L., Bock, A. V., and Henderson, L. J. Blood as a physicochemical system. IV,

1927, 73, 251

— See BOCK, DILL, HURXTHAL, LAWRENCE, COOLIDGE, DAILEY, and HENDERSON,

1927, 73, 749

—, Hurxthal, L. M., van Cau-laert, C., Fölling, A., and Bock, A. V. The carbon dioxide equilibrium in alveolar air and arterial blood. II. Resting subjects,

1927, 74, 303

—, Lawrence, J. S., Hurxthal, L. M., and Bock, A. V. The

- carbon dioxide equilibrium in alveolar air and arterial blood. III. Exercising subjects, 1927, 74, 313
- See HENDERSON, DILL, VAN CAULAERT, FÖLLING, and COOLIDGE, 1927, 74, xxxvi
- See HENDERSON, BOCK, DILL, HURXTHAL, and VAN CAULAERT, 1927, 75, 305
- Dimick, Alice. See UNDERHILL and DIMICK, 1923-24, 58, 133
- Dimmitt, Pauline S. See ROSE and DIMMITT, 1923, 55, xxvii
- Dittmar, Harry R. See WALTON and DITTMAR, 1926, 70, 713
- Dixon, M. See HOPKINS and DIXON, 1922, 54, 527
- Doby, Geza, and Hibbard R. P. Nutrient ions of plants and the ion activation of plant enzymes, 1927, 73, 405
- Doisy, Edward A., Eaton, Emily P., and Chouke, K. S. Buffer systems of blood serum, 1922, 53, 61
- and Beckmann, J. W. The relations existing between arterial and venous blood of the dog with special reference to the plasma chlorides, 1922, 54, 683
- , Briggs, A. P., Eaton, Emily P., and Chambers, William H. Evaluation of buffers of the blood, 1922, 54, 305
- , Somogyi, Michael, and Shaffer, Philip A. Some properties of an active constituent of pancreas (insulin), 1923, 55, xxxi
- See GIBSON and DOISY, 1923, 55, xvii, 605
- See BRIGGS, KOECHIG, DOISY, and WEBER, 1923-24, 58, 721
- , Allen, Edgar, Ralls, J. O., and Johnston, C. G. Preparation and properties of an ovarian hormone, 1924, 59, xliii
- and Weber, Clarence J. Further purification of insulin and analysis of the product, 1924, 59, xxxiv
- See SOMOGYI, DOISY, and SHAFFER, 1924, 59, xxxiii
- , Ralls, J. O., Allen, Edgar, and Johnston, C. G. The extraction and some properties of an ovarian hormone, 1924, 61, 711
- , Briggs, A. P., Weber, Clarence J., and Koechig, Irene. The formation of lactic acid by the diabetic organism, 1925, 63, xlviii
- See WEBER, BRIGGS, and DOISY, 1925, 66, 653
- See RALLS, JORDAN, HEUSINKVELD, and DOISY, 1926, 67, v
- See RALLS, JORDAN, and DOISY, 1926, 69, 357
- Domogalla, B. P., Juday, C., and Peterson, W. H. The forms of nitrogen found in certain lake waters, 1925, 63, 269
- See PETERSON, FRED, and DOMOGALLA, 1925, 63, xl, 287
- Donovan, Paul B. See HANKE and DONOVAN, 1927, 74, xxiv

- Doolittle, Dortha Bailey. See SMITH and DOOLITTLE, 1925, 65, 665
- Dow, Odessa D. See SUPPLEE and Dow, 1925, 63, 103
1927, 73, 617
1927, 75, 227
- Dox, Arthur W., and Yoder, Lester. Esterification of creatine, 1922, 54, 671
- Drabkin, David L. The normal urinary pigment, 1926, 67, xl
— The normal urinary pigment. A new method for its extraction, 1927, 74, xv
— The normal pigment of the urine. I. The relationship of urinary pigment output to diet and metabolism, 1927, 75, 443
— II. The relationship of the basal metabolism to the output of the normal urinary pigment, 1927, 75, 481
- Drake, T. G. H., and Tisdall, Frederick F. The effect of histamine on the blood chlorides, 1926, 67, 91
- Drinker, Katherine R., Fehnel, J. W., and Marsh, Marion. The normal excretion of zinc in the urine and feces of man, 1927, 72, 375
- Drucker, Paul, and Cullen, Glenn E. A simple method for obtaining cutaneous (capillary) blood from infants and adults for colorimetric pH determination, 1925, 64, 221
— and Faber, Frans. Investigations in tetany, 1926, 68, 57
- Drummond, J. C., Channon, H. J., and Coward, Katharine H. The chemistry of vitamin A, 1926, 67, p. 1
- Drury, D. R. The rate of urea excretion. VI. The effect of very high blood urea concentrations on the rate of urea excretion, 1923, 55, 113
— See ADDIS and DRURY, 1923, 55, 105, 629, 639
- Du Bois, Eugene F. Clinical calorimetry. XXXV. A graphic representation of the respiratory quotient and the percentage of calories from protein, fat, and carbohydrate, 1924, 59, 43
— See RICHARDSON, LEVINE, and DU BOIS, 1926, 67, 737
- Duggan, Walter F., and Scott, Ernest L. A critical examination of four methods commonly used for the determination of sugar in blood, 1926, 67, 287
- Dulaney, Herman. See GIBSON and DULANEY, 1926, 67, lxi
- Dunn, Edith R. See VOEGTLIN, DUNN, and THOMPSON, 1924, 59, xxxvii
— See VOEGTLIN, THOMPSON, and DUNN, 1925, 64, 639
- Dunn, L. C. The effect of cod liver oil in various amounts and forms on the growth of young chickens, 1924, 61, 129
— See PAPPENHEIMER and DUNN, 1925, 66, 717
- Dunn, Max S., and Schmidt, Carl L. A. The influence of position and of temperature upon the reaction of aliphatic

- amino nitrogen with nitrous acid, 1922, 53, 401
- . Basic proteins. I. The nitrogen distribution and the percentages of some amino acids in the protamine of the sardine, *Sardinia caerulea*, 1926, 70, 697
- Dunwiddie, Jeannette. See WANG, KERN, FRANK, and DUNWIDDIE, 1925, 63, lxi
- Dupray, Martin. A modification of Isaacs' colorimetric determination of blood chlorides, 1923-24, 58, 675
- Dutcher, R. Adams, Creighton, Mattie, and Rothrock, Henry A. Vitamin studies. XI. Inorganic blood phosphorus and bone ash in rats fed on normal, rachitic, and irradiated rachitic diets, 1925, 66, 401
- and Kruger, John Henry. Vitamin studies. XIV. The influence of ultra-violet light on the antirachitic properties of purified rations used in the study of vitamin A, 1926, 69, 277
- . See HONEYWELL, DUTCHER, and DAHLE, 1927, 74, lxxvii
- , Honeywell, Hannah E., and Dahle, Chester D. Vitamin studies. XVI. Vitamin A in evaporated milks made by vacuum and aeration methods, 1927, 75, 85
- Dye, Marie, Medlock, Olin C., and Crist, John W. The association of vitamin A with greenness in plant tissue. I. The relative vitamin A content of head and leaf lettuce, 1927, 74, 95
- van Dyke, Harry Benjamin. A study of the distribution of iodine between cells and colloid in the thyroid gland. IV. The distribution of iodine in the hyperplastic thyroid gland of the dog after the intravenous injection of iodine compounds, 1922, 54, 11
- E
- Eadie, George S., and Hunter, Andrew. The apparent dissociation constants of creatine and creatinine, 1926, 67, 237
- Eagle, H. S. On the nature of the urine sugars, 1926-27, 71, 481
- Eagles, Blythe Alfred. See HARDING and EAGLES, 1924, 60, 301
- . See BULMER, EAGLES, and HUNTER, 1925, 63, 17
- . See HARDING, ALLIN, EAGLES, and VAN WYCK, 1925, 63, 37, xlix
- . See Hunter and Eagles, 1925, 65, 623
1927, 72, 123,
133, 147, 167, 177
- . See HARDING, ALLIN, and EAGLES, 1927, 74, 631
- Eaton, Emily P. See DOISY, EATON, and CHOUKE, 1922, 53, 61
- . See DOISY, BRIGGS, EATON, and CHAMBERS, 1922, 54, 305
- . See RONZONI, KOECHIG, and EATON, 1924, 61, 465

Eaton, Emily P.—*continued.*

— and **West, Edward S.** The volumetric estimation of alkoxyl groups in organic compounds. A modification of the Zeisel procedure applicable to methoxyl-, ethoxyl-, and sulfur-containing compounds, 1927, 75, 283

Eckman, Rena S. See **EDDY** and **ECKMAN**,

1923, 55, 119

Eckstein, Henry C. Fat absorption through channels other than the left thoracic duct, 1924-25, 62, 737

— Synthesis of lecithin in the animal organism,

1924-25, 62, 743

— The fatty acids in the subcutaneous fat of man,

1925, 64, 797

— The distribution of some of the more important amino acids in the globulin of the thyroid gland,

1926, 67, 601

— and **Wile, Udo J.** The cholesterol content of the cutaneous epithelium of man,

1926, 67, lix

— and —. The cholesterol and phospholipid content of the cutaneous epithelium of man,

1926, 69, 181

— The cholesterol content of hair, wool, and feathers,

1927, 73, 363

— See **CHRISTMAN** and **ECKSTEIN**,

1927, 75, 201

Eddy, Walter H., Heft, Hattie L., and Stevenson, H. C. A reply to Fulmer, Nelson, and Sherwood concerning Medium F, 1922, 51, 83

— and **Eckman, Rena S.** The

supplementary protein value of peanut flour,

1923, 55, 119

— and **Heft, Hattie L.** The relation of fracture healing to the inorganic phosphorus of the blood serum,

1923, 55, xii

Éderer, Stephen A. P. Changes in the serum protein structure of rachitic rats while fed with cod liver oil,

1924, 60, 621

Edgar, Graham. Preparation and comparison of standards for the estimation of creatine and creatinine,

1923, 56, 1

— and **Hinegardner, W. S.** The preparation of creatinine from creatine,

1923, 56, 881

Edwards, A. C. See **MORGULIS** and **EDWARDS**,

1924, 59, xxvii

— See **MORGULIS**,

1925, 66, 353

Ege, Richard. On the residual reduction of blood,

1926, 68, 317

Eggleton, M. Grace. See **ABRAMSON**, **EGGLETON**, and **EGGLETON**,

1927, 75, 763

Eggleton, Philip. See **ABRAMSON** and **EGGLETON**,

1927, 75, 745, 753

— See **ABRAMSON**, **EGGLETON**, and **EGGLETON**,

1927, 75, 763

Eichelberger, Marietta. The effect of light on creatinine and creatine excretion and basal metabolism,

1926, 69, 17

Eisenman, Anna J. See

- PETERS, BULGER, and EISENMAN, 1923, 55, 687
 —. See PETERS, EISENMAN, and BULGER, 1923, 55, 709
 —. See PETERS, BULGER, and EISENMAN, 1923-24, 58, 747, 769, 773
 —, Bulger, Harold A., and Peters, John P. Total acid-base equilibrium of plasma in health and disease. II. The effect of carbon dioxide tension on the concentration of the acids of the plasma of oxygenated blood, 1926, 67, 159
 —. See PETERS, BULGER, and EISENMAN, 1926, 67, 165
 —. See PETERS, BULGER, EISENMAN, and LEE, 1926, 67, 141, 175, 219
 —. The effect of potassium oxalate on electrolytes of blood and plasma, 1926-27, 71, 587
 —. A gasometric method for the determination of pH in blood, 1926-27, 71, 611
 —. Method for anaerobic defibrination of blood, 1926-27, 71, 607
 —. See WAKEMAN, EISENMAN, and PETERS, 1927, 73, 567
 Ellis, N. R., and Hankins, O. G. Soft pork studies. I. Formation of fat in the pig on a ration moderately low in fat, 1925, 66, 101
 — and Isbell, H. S. Soft pork studies. II. The influence of the character of the ration upon the composition of the body fat of hogs, 1926, 69, 219
 — and —. III. The effect of food fat upon body fat, as shown by the separation of the individual fatty acids of the body fat, 1926, 69, 239
 Elvehjem, C. A. See HART, STEENBOCK, and ELVEHJEM, 1924-25, 62, 117
 —. See HART, STEENBOCK, ELVEHJEM, and WADDELL, 1925, 65, 67
 —. See STEENBOCK, HART, ELVEHJEM, and KLETZIEN, 1925, 66, 425
 — and Hart, E. B. Iron in nutrition. II. Quantitative methods for the determination of iron in biological materials, 1926, 67, 43
 —. See HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY, 1926, 67, 371
 —, Herrin, R. C., and Hart, E. B. Iron in nutrition. III. The effects of diet on the iron content of milk, 1926-27, 71, 255
 —. See HART, ELVEHJEM, WADDELL, and HERRIN, 1927, 72, 299
 — and Peterson, W. H. The iron content of animal tissues, 1927, 74, 433
 Embree, H. C. See McNALLY, EMBREE, and RUST, 1927, 74, 219
 Emmett, A. D., and Peacock, Gail E. Does the chick require the fat-soluble vitamins? 1923, 56, 679
 — and —. Adequacy of pigeons and rats for vitamin B studies, 1925, 63, xxiii

- Erikson, Statie E.** See OKEY, 1925, 63, xxxiii
- See OKEY and ERIKSON, 1926, 68, 687
- Estes, A. M.** See BURGE, WICKWIRE, ESTES, and WILLIAMS, 1927, 74, 235
- Estill, Howard W., and McCollum, E. V.** The separation of a substance from oils which inhibits the destruction of vitamin A by ferrous sulfate, 1927, 75, 157
- Ets, Harold N.** See ATKINSON and ETS, 1922, 52, 5
- Evans, Frank A.** See ROTHBERG and EVANS, 1923-24, 58, 435, 443
- Evans, Herbert M., and Burr, George O.** A new dietary deficiency produced with highly purified diets, 1927, 74, lxxii
- Evenden, James.** See ATKINSON, RAPPORT, and LUSK, 1922, 53, 155
- See RAPPORT, 1924, 60, 497
- See RAPPORT, WEISS, and CSONKA, 1924, 60, 583
- See WEISS and RAPPORT, 1924, 60, 513
- See WIERZUCHOWSKI and LING, 1925, 64, 697
- See DEUEL, WADDELL, and MANDEL, 1926, 68, 801
- See WIERZUCHOWSKI, 1926, 68, 385
- See DEUEL, CHAMBERS, and MILHORAT, 1926, 69, 249
- See PLUMMER, DEUEL, and LUSK, 1926, 69, 339
- See DEUEL, WILSON, and MILHORAT, 1927, 74, 265
- See CHAMBERS, DEUEL, and MILHORAT, 1927, 75, 423
- Everett, Mark R., and Shoemaker, Harold A.** The estimation of total sugar in blood and urine, 1927, 74, vi
- , —, and SHEPPARD, FAY. Total sugar of blood and urine, 1927, 74, 739
- Extron, W. G.** See ROSE and EXTRON, 1926, 67, xli
- Faber, Frans.** See DRUCKER and FABER, 1926, 68, 57
- Fairhall, Lawrence T.** Lead studies. VIII. The microchemical detection of lead, 1923, 57, 455
- IX. The solubility of various lead compounds in blood serum, 1924, 60, 481
- XI. A rapid method of analyzing urine for lead, 1924, 60, 485
- The nutritive value of inorganic substances. I. A study of the normal zinc metabolism with particular reference to the calcium metabolism, 1926, 70, 495
- Fales, Helen L.** An analysis of camel's colostrum, 1922, 53, 339
- Falk, K. George, Noyes, Helen Miller, and Sugiura, Kanematsu.** Studies on enzyme action. XX. The protease actions of malignant human and rat tumor extracts at

- different hydrogen ion concentrations and in the presence of various salts, 1922, 53, 75
- and McGuire, Grace. Studies on enzyme action. XXI. Banana gel and banana sucrase, 1922, 54, 655
- See NOYES, SUGIURA, and FALK, 1923, 55, 653
- See SUGIURA, NOYES, and FALK, 1923, 56, 903
- , Noyes, Helen Miller, and Sugiura, Kanematsu. Studies on enzyme action. XXV. Comparative lipase and protease actions of the Flexner-Jobling rat carcinoma and of different rat tissues, 1924, 59, 183
- , —, and —. XXVI. Comparative lipase and protease actions of different beef tissues, 1924, 59, 213
- , —, and —. XXVII. The comparative enzyme actions of tissue mixtures and of tumor-tissue mixtures in relation to the comparative enzyme actions of tissue and of tumor extracts alone, 1924, 59, 225
- See MCGUIRE and FALK, 1924, 60, 489
- , Noyes, Helen Miller, and Sugiura, Kanematsu. Studies on enzyme action. XXX. A comparative study of the characteristic lipase actions of the tissues of different animals and of some human tissues, 1924-25, 62, 697
- See NOYES and FALK, 1924-25, 62, 687
- . See NOYES, LORBERBLATT, and FALK, 1926, 68, 135
- and Noyes, Helen Miller. Studies on enzyme action. XLI. Time changes in ester-hydrolyzing actions of extracts of whole mice of different ages, 1927, 72, 467
- and —. XLIII. Time changes in ester-hydrolyzing actions of extracts of some rabbit tissues, 1927, 72, 489
- . See NOYES and FALK, 1927, 72, 449, 475
- Fay, Marion. See HENDRIX, FAY, CALVIN, and BODANSKY, 1926, 69, 449
- Fearon, William Robert. The significance of cyanic acid in the urea-urease system. A color test for cyanic acid, 1926, 70, 785
- Fehnel, J. W. See DRINKER, FEHNEL, and MARSH, 1927, 72, 375
- Felsher, Augusta R. See WANG and FELSHER, 1924, 59, liii, liv
1924, 61, 659
- Felsher, Hannah V., and Woodyatt, R. T. Studies on the theory of diabetes. IX. Sugar excretion curves in dogs under intravenous injection of glucose at lower rates, 1924, 60, 737
- Felty, A. R., and Murray, H. A., Jr. Observations on dogs with experimental pyloric obstruction. The acid-base equilibrium, chlorides, non-protein nitrogen, and urea of the blood, 1923, 57, 573

- Fenger, Frederic, and Wilson, Ray S. The amount of available insulin in the pancreas of domestic animals, 1924, 59, 83
- and Andrew, Robert H. On the isoelectric precipitation of pepsin, 1927, 73, 371
- Ferry, R. M. Studies in the chemistry of hemoglobin. I. The preparation of hemoglobin, 1923, 57, 819
- II. A method for the study of the equilibrium between oxygen and hemoglobin, 1924, 59, 295
- Fetter, F. See McCLENDON, 1926, 69, 733
- Field, H., Jr. See BOCK, FIELD, and ADAIR, 1924, 59, 353
- See HENDERSON, BOCK, FIELD, and STODDARD, 1924, 59, 379
- See BOCK and FIELD, 1924-25, 62, 269
- See ADAIR, 1925, 63, 493, 499, 503, 515, 517, 529
- Field, John, 2nd, and Alsberg, C. L. A study of the birefringence and the staining of agar-agar and of gelatin, 1925, 63, xlii
- Fieser, Louis F. See CONANT and FIESER, 1924-25, 62, 595, 623
- Finch, Myron W. See YOUNGBURG and FINCH, 1926, 68, 335
- Findlay, D. M. See MOLONEY and FINDLAY, 1923, 57, 359
- Fink, David E. A modified electro-Gutzeit apparatus for the quantitative estimation of minute amounts of arsenic in insect tissue, 1927, 72, 737
- Finks, A. J. See JONES, FINKS, and GERSDORFF, 1922, 51, 103
- , Jones, D. Breese, and Johns, Carl O. The rôle of cystine in the dietary properties of the proteins of the cow-pea, *Vigna sinensis*, and of the field pea, *Pisum sativum*, 1922, 52, 403
- See JONES, FINKS, and WATERMAN, 1922, 52, 209
- See JONES, GERSDORFF, JOHNS, and FINKS, 1922, 53, 231
- Finner, Lucy L. See SUMNER and HUBBARD, 1923, 56, 701
- Fiske, Cyrus H. A method for the estimation of total base in urine, 1922, 51, 55
- The hydrolysis of amides in the animal body. The comparative stability of surface active homologs in relation to the mechanism of enzyme action, 1923, 55, 191
- and Sokhey, S. S. Ammonia and fixed base excretion after the administration of acid by various paths, 1925, 63, 309
- and Subbarow, Yella-pragada. The colorimetric determination of phosphorus, 1925, 66, 375
- , Goodell, Robert A., Hathaway, Louis E., Jr., and West, Edward J. Further observations on the fate of acid in the body, 1926, 67, 385

- and Litarczek, Georges. A new method for potassium, 1926, 67, xvi
- and Boyden, Edward A. Nitrogen metabolism in the chick embryo, 1926, 70, 535
- and Subbarow, Yella-pragada. The "inorganic phosphate" of muscle, 1927, 74, xxii
- Fitch, J. B. See HUGHES, FITCH, CAVE, and RIDDELL, 1926-27, 71, 309
- Fleisher, Moyer S. See LOEB, FLEISHER, and TUTTLE, 1922, 51, 461, 485
- Fletcher, A. A. See CAMPBELL, FLETCHER, HEPBURN, and MARKOWITZ, 1926, 67, lvii
- Folin, Otto. A colorimetric determination of the amino acid nitrogen in normal urine, 1922, 51, 393
- . Note on the necessity of checking up the quality of sodium tungstate used in the system of blood analysis, 1922, 51, 419
- . A system of blood analysis. Supplement III. A new colorimetric method for the determination of the amino acid nitrogen in blood, 1922, 51, 377
- and Berglund, Hilding. A colorimetric method for the determination of sugars in normal human urine, 1922, 51, 209
- and — . The retention and distribution of amino acids with especial reference to the urea formation, 1922, 51, 395
- and — . Some new observations and interpretations with reference to transportation, retention, and excretion of carbohydrates, 1922, 51, 213
- and Looney, Joseph M. Colorimetric methods for the separate determination of tyrosine, tryptophane, and cystine in proteins, 1922, 51, 421
- . A system of blood analysis. Supplement IV. A revision of the method for determining uric acid, 1922, 54, 153
- , Berglund, Hilding, and Derick, Clifford. The uric acid problem. An experimental study on animals and man, including gouty subjects, 1924, 60, 361
- and Trimble, Harry. A system of blood analysis. Supplement V. Improvements in the quality and method of preparing the uric acid reagent, 1924, 60, 473
- . The determination of sugar in blood and in normal urine, 1926, 67, 357
- and Svedberg, Andrea. The sugar in urine and in blood, 1926, 70, 405
- and Ciocalteu, Vintila. On tyrosine and tryptophane determinations in proteins, 1927, 73, 627
- , Trimble, Harry C., and Newman, Lloyd H. The distribution and recovery of glucose injected into animals, 1927, 75, 263

- Fölling, A. See DILL, HURX-
THAL, VAN CAULAERT,
FÖLLING, and BOCK,
1927, 74, 303
- See HENDERSON, DILL,
VAN CAULAERT, FÖLLING,
and COOLIDGE,
1927, 74, xxxvi
- Forbes, E. B., Schulz, J. A.,
Hunt, Charles H., Winter,
A. R., and Remler, R. F.
The mineral metabolism of
the milch cow,
1922, 52, 281
- and Swift, Raymond W.
The iron content of meats,
1926, 67, 517
- Forbes, J. C. The purification
of pepsin, its properties, and
physical characters,
1926-27, 71, 559
- Foster, G. L. Studies on
carbohydrate metabolism.
I. Some comparisons of
blood sugar concentrations in
venous blood and in finger
blood, 1923, 55, 291
- II. An interpretation of
the blood sugar phenomena
following the ingestion of
glucose, 1923, 55, 303
- See SCHMIDT and FOSTER,
1923, 55, xvi
- and Schmidt, Carl L. A.
The separation of the hexone
bases from certain protein
hydrolysates by electrolysis,
1923, 56, 545
- and Smith, Philip E. Some
effects of posterior pituitary
ablation in the rat,
1926, 67, xxix
- and Sundstroem, E. S. A
respiration apparatus for
small animals,
1926, 69, 565
- and Benninghoven, C. D.
On fat and glycogen in the
tissues in experimentally
induced obesity in the rat,
1926, 70, 285
- Fox, Edward L. See BENE-
DICT and Fox,
1925, 66, 783
- See CARPENTER and Fox,
1926, 70, 115
1927, 73, 379
- Frank, Margaret. See WANG,
KERN, FRANK, and DUN-
WIDDIE, 1925, 63, lxi
- Franke, Elizabeth. See BENE-
DICT and FRANKE,
1922, 52, 387
- Frazier, W. C. See LEP-
KOVSKY, HART, HASTINGS,
and FRAZIER,
1925, 66, 49
- Fred, E. B. See PETERSON,
FRED, and ANDERSON,
1922, 53, 111
- See PETERSON, FRED, and
SCHMIDT, 1922, 54, 19
1924, 60, 627
- See SCHMIDT, PETERSON,
and FRED,
1924, 61, 163
- See PETERSON, FRED, and
DOMOGALLA,
1925, 63, xl, 287
- See STILES, PETERSON,
and FRED,
1925, 64, 643
- See PEDERSON, PETERSON,
and FRED,
1926, 68, 151
- See PETERSON, FRED, and
MARTEN, 1926, 70, 309
- See WILSON, PETERSON,
and FRED,
1927, 74, 495
- Freedman, Louis. See FUNK
and FREEDMAN,
1923, 56, 851

- Freeman, Benjamin.** See **NELSON and FREEMAN,** 1925, 63, 365
- Fremont-Smith, Frank, and Dailey, Mary Elizabeth.** Studies in the distribution of chloride and protein between plasma and synovial fluid, 1926, 70, 779
- Fridericia, L. S.** Inactivating action of some fats on vitamin A in other fats, 1924-25, 62, 471
- Friedemann, Theodore E.** See **SHAFFER and FRIEDEMANN,** 1924, 61, 585
- The reaction of acetoacetic acid with the hexoses, 1925, 63, xxi
- , **Somogyi, M., and Webb, P. K.** The effect of glucose and insulin injection upon artificial ketosis of normal and diabetic dogs, 1926, 67, xlv
- The action of alkali and hydrogen peroxide on glyoxals, 1927, 73, 331
- , **Cotonio, Margherita, and Shaffer, Philip A.** The determination of lactic acid, 1927, 73, 335
- Friedemann, W. G.** The nitrogen distribution of proteins extracted by 0.2 per cent sodium hydroxide solution from cottonseed meal, the soy bean, and the coconut, 1922, 51, 17
- Friend, Herman.** Clinical method for the estimation of chlorides in blood, 1922, 51, 115
- A quantitative color reaction given by adrenalin and urine, 1923, 57, 497
- Frith, Althea B.** See **RABINOWITCH,** 1925, 65, 55, 617
- Fronza, F. M.** See **MAYNARD, FRONZA, and CHEN,** 1923, 55, 145
- Fulmer, Ellis I., and Nelson, Victor E.** Water-soluble B and bios in yeast growth, 1922, 51, 77
- , —, and **White, Anne.** The growth of yeast on a medium of wholly synthetic origin, 1923, 57, 397
- See **NELSON, HELLER, and FULMER,** 1923, 57, 415
- Fulton, John F.** See **COHN, MINOT, FULTON, ULRICH, SARGENT, WEARE, and MURPHY,** 1927, 74, lxi
- Funk, Casimir, and Freedman, Louis.** The presence of a yeast growth-promoting vitamin in cane-sugar, 1923, 56, 851
- , **Harrow, Benjamin, and Paton, Julia B.** Extraction of vitamins from yeast and rice polishings with various water-miscible solvents, 1923, 57, 153
- G
- Gad-Andresen, K. L.** A micro method for the estimation of ammonia in blood and in organic fluids, 1922, 51, 367
- A micro urease method for the estimation of urea in blood, secretions, and tissues, 1922, 51, 373
- Gaebler, Oliver Henry.** See **HARDING and GAEBLER,** 1922, 54, 579
- 1923, 57, 25

- Gaebler, Oliver Henry.—*continued*.
- The influence of insulin, administered orally and subcutaneously, in phlorhizin diabetes, 1925, 63, li
 - and Murlin, John R. The influence of insulin, administered orally and subcutaneously, in phlorhizin diabetes, 1925, 66, 731
 - Destruction of an hydantoin nucleus (β -methyl hydantoin) in the animal body, 1926, 67, lv
 - The decomposition of creatinine with baryta, 1926, 69, 613
 - and Keltch, Anna K. On the metabolism of hydantoins and hydantoic acids, 1926, 70, 763
 - and —. Studies on blood creatinine, 1927, 74, xx
 - Gaessler, W. G., and McCandlish, A. C. A study of the calcium balance of dairy cows, 1923, 56, 663
 - Gamble, Clarence James. See STARR and GAMBLE, 1926-27, 71, 509
 - Gamble, James L. Carbonic acid and bicarbonate in urine, 1922, 51, 295
 - , Ross, G. S., and Tisdall, Frederick F. The metabolism of fixed base during fasting, 1923, 57, 633
 - Garlock, Bertha. See HELLER, McELROY, and GARLOCK, 1925, 65, 255
 - Gee, A. H., and Chaikoff, I. L. The identification of acetaldehyde in normal blood and its quantitative study in the blood of normal and diabetic dogs, 1926, 70, 151
 - Geiling, E. M. K. See SUPNIEWSKI, ISHIKAWA, and GEILING, 1927, 74, 241
 - Gellis, Archie D. See SHORT and GELLIS, 1927, 73, 219
 - Gerard, R. W. Chemical studies on intestinal intoxication. I. The presence and significance of histamine in an obstructed bowel, 1922, 52, 111
 - Gersdorff, Charles E. F. See JOHNS and GERSDORFF, 1922, 51, 439
 - See JONES, FINKS, and GERSDORFF, 1922, 51, 103
 - See JONES, GERSDORFF, JOHNS, and FINKS, 1922, 53, 231
 - See JONES and GERSDORFF, 1923, 56, 79
1923-24, 58, 117
 - See JONES, GERSDORFF, and MOELLER, 1924-25, 62, 183
 - See JONES and GERSDORFF, 1925, 63, xlv
1925, 64, 241
 - See JONES, GERSDORFF, and MOELLER, 1925, 64, 655
 - See JONES, MOELLER, and GERSDORFF, 1925, 65, 59
 - See JONES and GERSDORFF, 1927, 74, 415
1927, 75, 213
 - Gibbs, C. B. F. See CLOUGH, STOKES, GIBBS, STONE, and MURLIN, 1923, 55, xxx
 - See MURLIN, CLOUGH, GIBBS, and STOKES, 1923, 56, 253

- Gibbs, H. D. See CLARK, COHEN, GIBBS, and SULLIVAN, 1924, 59, xxi
- See CLARK, COHEN, and GIBBS, 1925, 63, liv
1926, 67, x
- Phenol tests. II. Nitrous acid tests. The Millon and similar tests. Spectrophotometric investigations, 1926-27, 71, 445
- III. The indophenol test, 1927, 72, 649
- Gibson, Harry V., and Doisy, Edward A. A note on the effect of some organic acids upon the uric acid excretion of man, 1923, 55, xvii, 605
- Studies on capillary blood sugar, 1926, 67, xlv
- Gibson, R. B., and Dulaney, Herman. Curves of the blood and cerebrospinal fluid sugar following glucose ingestion in a case of cerebrospinal rhinorrhea, 1926, 67, lxi
- See MAGERS and GIBSON, 1927, 75, 299
- Gies, William J. See HEFT, KAHN, and GIES, 1925, 63, lvii
- Giffin, H. Z. See SANDIFORD, BOOTHBY, and GIFFIN, 1923, 55, xxiii
- Gilbert, B. E., and Smith, J. B. The ceruleomolybdate estimation of phosphate-phosphorus, 1927, 74, 223
- Gilbert, Max, and Bock, Joseph C. On the determination of sugar in small amounts of blood, 1924-25, 62, 361
- See BOCK and GILBERT, 1925, 63, xxxix
- , Schneider, Hans, and Bock, Joseph C. Blood sugar studies, 1926, 67, 629
- See BOCK, SCHNEIDER, and GILBERT, 1926, 69, 9
- Giles, Upton. See DENIS and GILES, 1923, 56, 739
- Gillette, Ethelyn M. See BLOOR, GILLETTE, and JAMES, 1927, 75, 61
- Gittleman, I. F. See KRAMER and GITTLEMAN, 1924, 59, xlv
1924-25, 62, 353
- See HOLT, LA MER, and CHOWN, 1925, 64, 567
- See HOLT, 1925, 66, 23
- Givens, M. H., and Behrendt, F. The use of the rat for the estimation of vitamin B, 1924, 59, x
- Glaser, Jerome. The lactic acid content of cerebrospinal fluid, 1926, 69, 539
- Glover, Eugene Chellis. See SCHMITZ and GLOVER, 1927, 74, 761
- Gloy, O. H. M. See SHERMAN and GLOY, 1927, 74, 117
- Goddard, Julia. See DENIS, 1923, 56, 473
- See DENIS and VON MEYSENBUG, 1923, 57, 47
- Goebel, Walther F. See HEIDELBERGER and GOEBEL, 1926, 70, 613
- On the oxidation of glucose in alkaline solutions of iodine, 1927, 72, 801
- The preparation of hexonic and bionic acids by oxidation of aldoses with barium hypoiodite, 1927, 72, 809

- Goebel, Walther F.—*continued*.
- The soluble specific substance of Friedländer's bacillus. IV. On the nature of the hydrolytic products of the specific carbohydrate from Type A Friedländer bacillus, 1927, 74, 619
 - See HEIDELBERGER and GOEBEL, 1927, 74, 613
 - Goldberg, S. A. See MAYNARD, GOLDBERG, and MILLER, 1925, 65, 643
 - Goldblatt, Harry, and Moritz, Alan R. On the growth-promoting property of irradiated fat in the diet, of direct irradiation, and of cod liver oil, 1926-27, 71, 127
 - and —. The effect of heat and oxidation on the nutritive value of a protein, 1927, 72, 321
 - Goldschmidt, Samuel, and Light, Arthur B. A method of obtaining from veins blood similar to arterial blood in gaseous content, 1925, 63, xxxviii
1925, 64, 53
 - Goodell, Robert A. See FISKE, GOODELL, HATHAWAY, and WEST, 1926, 67, 385
 - Gordon, Samuel M. The crossed dismutation between aldehydes and ketones. I. Benzaldehyde and menthone, and their significance for the menthone-menthol relations in *Mentha piperita* L., 1927, 75, 163
 - Gortner, Ross Aiken. See HOFFMAN and GORTNER, 1925, 65, 371
 - and Hoffman, Walter F. On the presence of amines in the distillate from Kjeldahl-Gunning nitrogen determinations. Preliminary paper, 1926, 70, 457
 - and —. Sulfur in proteins. III. Derivatives of *l*- and *i*-cystine, 1927, 72, 433
 - The nature of the combination between certain acid dyes and proteins, 1927, 74, 409
 - Sulfur in proteins. III. Derivatives of *l*- and *i*-cystine. A reply, 1927, 75, 199
 - Gottenberg, M. J., and Alsberg, C. L. The behavior of the prolamins in mixed solvents. III. The denaturation of wheat gliadin, 1927, 73, 581
 - Gottschalk, Alfred. See LUNDSGAARD, HOLBØLL, and GOTTSCHALK, 1926, 70, 79, 83, 89
 - Graham, Alice. See MACY, outhouse, GRAHAM, and LONG, 1927, 73, 175, 189
 - See MACY, outhouse, LONG, and GRAHAM, 1927, 73, 153
 - See outhouse, MACY, BREKKE, and GRAHAM, 1927, 73, 203
 - Graham, Viola A. See SUMNER, GRAHAM, and NOBACK, 1924, 59, xx
 - See SUMNER and GRAHAM, 1925, 63, xliii
1925, 64, 257
 - Gram, H. C. Observations on the regulation of osmotic pressure (conductivity,

- chlorides, freezing point, and proteins of serum),
1923, 56, 593
- and Norgaard, A. Chloride and conductivity determinations on plasma,
1923, 56, 429
- and Cullen, Glenn E. The accuracy of the "ionometric" method and of the protein correction in measuring serum conductivity,
1923, 57, 477
- . Cell volume and electrical conductivity of blood,
1924, 59, 33
- . See AUSTIN and GRAM,
1924, 59, 535
- . Chlorides of serum, blood, and corpuscles in various pathological conditions,
1924, 61, 337
- . See AUSTIN, CULLEN, GRAM, and ROBINSON,
1924, 61, 829
- Graves, Roger C. See LOONEY, BERGLUND, and GRAVES,
1923, 57, 515
- Gray, I. E. See HALL, GRAY, and LEPKOVSKY,
1926, 67, 549
- Gray, Samuel H. See ABRAMSON and GRAY,
1927, 73, 459
- Greaves, J. E., and Carter, E. G. The influence of irrigation water on the composition of grains and the relationship to nutrition,
1923-24, 58, 531
- Green, Robert P. See BARR, HIMWICH, and GREEN,
1923, 55, 495
- Greenberg, David M. See UPDEGRAFF, GREENBERG, and CLARK,
1926-27, 71, 87
- . See CHAPMAN, GREENBERG, and SCHMIDT,
1927, 72, 707
- . The transport numbers of solutions of fibrin in dilute acids and alkalies,
1927, 74, lii
- Greene, Carl H. See GREENE and GREENE,
1922, 52, 137
- , Sandiford, Kathleen, and Ross, Helen. The amino acid content of the blood in normal and pathologic conditions,
1923-24, 58, 845
- . See POWER and GREENE,
1927, 74, xix
- Greene, Charles W., and Greene, Carl H. The partial pressure of oxygen in the blood during progressively induced anoxemia,
1922, 52, 137
- . Analysis of the gases of the air-bladder of the California singing fish, *Porichthys notatus*,
1924, 59, 615
- Greenwald, Isidor. The supposed relation between alkalosis and tetany,
1922, 54, 285
- and Gross, Joseph. Some sources of error in the determination of chlorides in blood and similar material,
1922, 54, 589
- and Lewman, Gertrude. The determination of the titratable alkali of the blood,
1922, 54, 263
- . Observations on the nature of the carbohydrate of normal urine,
1923, 55, xiv
- . Alkalosis, sodium poisoning, and tetany,
1924, 59, 1

Greenwald, Isidor.—*continued.*

- Are guanidines present in the urines of parathyroidectomized dogs?

1924, 59, 329

- The chemistry of Jaffe's reaction for creatinine,

1924, 59, xlvii

- and Gross, Joseph. The chemistry of Jaffe's reaction for creatinine. A red tautomer of creatinine picrate,

1924, 59, 601

- and —. A note on rubidium and cesium creatinine picrates,

1924, 59, 613

- Is there a toxin in the blood of parathyroidectomized dogs?

1924, 61, 33

- Some chemical changes in the blood of dogs after thyro-parathyroidectomy,

1924, 61, 649

- , Gross, Joseph, and Samet, Jerome. The nature of the sugar in normal urine. II. The sugar excretion upon various diets and the influence of diet upon glucose tolerance with some remarks on the nature of the action of insulin,

1924-25, 62, 401

- , Samet, Jerome, and Gross, Joseph. The nature of the sugar in normal urine. I. A comparison of the glucose equivalent of various sugars in different methods for the determination of glucose,

1924-25, 62, 397

- A new type of phosphoric acid compound isolated from blood, with some remarks on the effect of substitution on the rotation of *l*-glyceric acid,

1925, 63, 339

- and Gross, Joseph. The effect of the administration of a potent parathyroid extract upon the excretion of nitrogen, phosphorus, calcium, and magnesium, with some remarks on the solubility of calcium phosphate in serum and on the pathogenesis of tetany,

1925, 66, 217

- and —. The effect of thyro-parathyroidectomy in dogs upon the excretion of calcium, phosphorus, and magnesium,

1925, 66, 185

- and —. The excretion of calcium, phosphorus, and magnesium after the injection of calcium chloride, sodium phosphate, or both,

1925, 66, 201

- The effect of the administration of calcium salts and of sodium phosphate upon the calcium and phosphorus metabolism of thyro-parathyroidectomized dogs, with a consideration of the nature of the calcium compounds of blood and their relation to the pathogenesis of tetany,

1926, 67, 1

- The relation of the parathyroid glands to the calcium of the blood,

1926, 67, xxxv

- and Gross, Joseph. The effect of long continued administration of parathyroid extract upon the excretion of phosphorus and calcium,

1926, 68, 325

- , —, and McGuire, Grace. Observations on the nature of the sugar of normal urine,

1927, 75, 491

- Griffing, E. P.** See **ALSBERG** and **GRIFFING**, 1927, 74, lxx
- Griffith, Wendell H.** See **LEWIS** and **GRIFFITH**, 1923, 55, xxii
- and **Lewis, Howard B.** Studies in the synthesis of hippuric acid in the animal organism. V. The influence of amino acids and related substances on the synthesis and rate of elimination of hippuric acid after the administration of benzoate, 1923, 57, 1
- and —. VI. The influence of the protein of the diet on the synthesis and rate of elimination of hippuric acid after the administration of benzoates, 1923, 57, 697
- . The absorption of sodium benzoate and of sodium hippurate from the small intestine of the rabbit, 1924, 59, li
- . The synthesis and excretion of hippuric acid by rabbits, 1925, 63, xix
- . A note on the influence of the diet on the synthesis of hippuric acid, 1925, 64, 401
- . Benzoylated amino acids in the animal organism. I. The behavior of hippuric acid following its oral administration, 1925, 66, 671
- and **Cappel, Powel B.** Benzoylated amino acids in the animal organism. II. The hydrolysis of hippuric acid in the alimentary canal of the rabbit, 1925, 66, 683
- . A modified method for the determination of hippuric acid, 1926, 67, xv
- . Benzoylated amino acids in the animal organism. III. A method for the determination of hippuric acid and a study of the synthesis of hippuric acid in rabbits, 1926, 69, 197
- . The effect of sodium benzoate on the growth of rats, 1927, 74, lxx
- Grollman, Arthur.** The combination of phenol red and proteins, 1925, 64, 141
- . The condition of the inorganic phosphorus of the blood with special reference to the calcium concentration, 1927, 72, 565
- Gross, Erwin G., and Underhill, Frank P.** The metabolism of inorganic salts. I. The organic ion balance of the blood in parathyroid tetany, 1922, 54, 105
- . Inorganic salt metabolism. II. Inorganic ion ratio after administration of oxalates and citrates, 1923, 55, 729
- . See **UNDERHILL** and **GROSS**, 1923-24, 58, 141
- Gross, Joseph.** See **GREENWALD** and **GROSS**, 1922, 54, 589
- 1924, 59, 601, 613
- . See **GREENWALD**, **GROSS**, and **SAMET**, 1924-25, 62, 401
- . See **GREENWALD**, **SAMET**, and **GROSS**, 1924-25, 62, 397
- . See **GREENWALD** and **GROSS**, 1925, 66, 185, 201, 217
- 1926, 68, 325

Gross, Joseph.—*continued.*

— See GREENWALD, GROSS,
and MCGUIRE,

1927, 75, 491

Guerrant, Nollie B. See
HOGAN, GUERRANT, and
KEMPSTER,

1925, 64, 113

Gunn, Katherine B. See
BLUNT, TILT, McLAUGHLIN,
and GUNN,

1926, 67, 491

Gustavson, Reuben G. See
KOCH, CAHAN, and GUSTAV-
SON,

1926, 67, lii

Gustus, Edwin L. See JACOBS
and GUSTUS,

1926, 69, 641

— See JACOBS, HOFFMANN,
and GUSTUS,

1926, 70, 1

— See JACOBS and GUSTUS,
1927, 74, 795, 805, 811, 829

Guthrie, C. C. See McELLROY
and GUTHRIE,

1927, 74, xxxv

Guttmacher, M. S., and Weiss,
Robert. The influence of
urethane narcosis upon the
specific dynamic action of
glycocoll and glucose in
rabbits,

1927, 72, 283

Guy, Loren P. See CHANUTIN,
1926, 67, 29

H

Haden, Russell L. A modifica-
tion of the Folin-Wu method
for making protein-free blood
filtrates,

1923, 56, 469

— and Orr, Thomas G.
Chemical findings in the
blood of the normal dog,

1925, 65, 479

Haggard, Howard W. An
accurate method of deter-
mining small amounts of

ethyl ether in air, blood, and
other fluids, together with a
determination of the coeffi-
cient of distribution of ether
between air and blood at
various temperatures,

1923, 55, 131

— The absorption, distri-
bution, and elimination of
ethyl ether. I. The amount
of ether absorbed in relation
to the concentration inhaled
and its fate in the body,

1924, 59, 737

— II. Analysis of the
mechanism of absorption and
elimination of such a gas or
vapor as ethyl ether,

1924, 59, 753

— III. The relation of the
concentration of ether, or any
similar volatile substance, in
the central nervous system to
the concentration in the
arterial blood, and the buffer
action of the body,

1924, 59, 771-

— IV. The anesthetic ten-
sion of ether and the
physiological response to
various concentrations,

1924, 59, 783

— V. The importance of the
volume of breathing during
the induction and termina-
tion of ether anesthesia,

1924, 59, 795

— See HENDERSON and
HAGGARD,

1925, 63, lxi

Hahn, Young D. See RAKE-
STRAW,

1923, 56, 121

Hall, F. G. A method for the
determination of dissolved
carbon dioxide,

1923, 55, 751

- , Gray, I. E., and Lepkovsky, Samuel. The influence of asphyxiation on the blood constituents of marine fishes, 1926, 67, 549
- Haller, H. L. See LEVENE, TAYLOR, and HALLER, 1924, 61, 157
- See LEVENE and HALLER, 1925, 63, 669
1925, 65, 49
1926, 67, 329
1926, 69, 165, 569
- See LEVENE, WALTI, and HALLER, 1926-27, 71, 465
- See LEVENE, HALLER, and WALTI, 1927, 72, 591
- See LEVENE and HALLER, 1927, 74, 343
- Halpin, J. G. See HART, HALPIN, and STEENBOCK, 1922, 52, 379
- See HART, STEENBOCK, LEPKOVSKY, and HALPIN, 1923-24, 58, 33
1924, 60, 341
- See HART, STEENBOCK, LEPKOVSKY, KLETZLIEN, HALPIN, and JOHNSON, 1925, 65, 579
- See HART, STEENBOCK, LEPKOVSKY, and HALPIN, 1925, 66, 813
- Hamilton, Bengt. A comparison of the concentrations of inorganic substances in serum and spinal fluid, 1925, 65, 101
- Hamilton, T. S. See MITCHELL, ZIMMERMAN, and HAMILTON, 1926-27, 71, 379
- Hamilton, William F. See BARBOUR and HAMILTON, 1926, 69, 625
- and Barbour, Henry G. The effects of respiratory gases upon the density of blood and other fluids, 1927, 74, 553
- Hammett, Frederick S., and Adams, Elliott T. A colorimetric method for the determination of small amounts of magnesium, 1922, 52, 211
- Creatinine and creatine in muscle extracts. III. Concerning the presence of enzymes in muscle tissue which have creatine and creatinine as their substrates, 1922, 53, 323
- and Adams, Elliott T. Note on a colorimetric method for the determination of small amounts of magnesium, 1922, 54, 565
- Creatinine and creatine in muscle extracts. IV. Concerning the formation of creatine from methyl guanidine in muscle, 1923, 55, 323
- The refractive index and water content of the blood serum of thyroparathyroidectomized and parathyroidectomized albino rats, 1923, 55, x
- Studies of the thyroid apparatus. XVII. The effect of thyroparathyroidectomy and parathyroidectomy at one-hundred days of age on the calcium, magnesium, and phosphorus content of the ash of the humerus and femur of male and female albino rats, 1925, 57, 285

- Hammett, Frederick S.**—*continued.*
- Creatinine and creatine in muscle extracts. V. A comparison of the rate of creatinine formation from creatine in extracts of brain and muscle tissue, 1924, 59, 347
 - The effect of thyroid and parathyroid deficiency on the gross chemical composition of the long bones, 1924, 59, xli
 - Age changes in the chemical composition of the long bones, 1925, 63, xxx
 - A biochemical study of bone growth. I. Changes in the ash, organic matter, and water during growth (*Mus norvegicus albinus*), 1925, 64, 409
 - II. Changes in the calcium, magnesium, and phosphorus of bone during growth, 1925, 64, 685
 - III. Changes in the composition of the ash during growth, 1925, 64, 693
 - Studies of the thyroid apparatus. XLIV. The rôle of the thyroid and parathyroid glands in the chemical differentiation of bone during growth. (Ash, organic matter, and water.), 1927, 72, 505
 - XLV. The rôle of the thyroid and parathyroid glands in the chemical differentiation of bone during growth. (Calcium, magnesium, phosphorus.), 1927, 72, 527
 - Chemical study of thymus involution, 1927, 74, lxiii
 - Hansa, W. R.** See MORGULIS and HANSA, 1927, 74, 851
 - Handleman, I.** See ROSE, RIESENFELD, and HANDLEMAN, 1925, 63, xlii
 - Hanke, Martin E.** A new acid-forming enzyme in gastric and other tissues, and its possible significance in the gastric hydrochloric acid mechanism, 1926, 67, xi
 - and Donovan, Paul B. The organic chlorides of tissues and their possible relation to gastric hydrochloric acid formation, 1927, 74, xxiv
 - Hanke, Milton T., and Koessler, Karl K.** Studies on proteinogenous amines. XVII. On the faculty of normal intestinal bacteria to form toxic amines, 1924, 59, 835
 - and —. XVIII. On the production of histamine, tyramine, and phenol in common laboratory media by certain intestinal micro-organisms, 1924, 59, 855
 - and —. XIX. On the factors involved in the production of phenol by the colon group, 1924, 59, 867
 - and —. XX. On the presence of histamine in the mammalian organism, 1924, 59, 879
 - See KOESSLER and HANKE, 1924, 59, iii, 803, 889
 - The histidine and tyrosine

- content of a number of proteins, 1925, 66, 489
- The quantitative estimation of tyrosine and histidine in protein. A method for estimating tyramine in protein-containing mixtures, 1925, 66, 475
- and Koessler, Karl K. A continuous dialysis or extraction apparatus which operates at reduced pressure with a constant volume of liquid, 1925, 66, 495
- The colorimetric estimation of tyrosine in protein, 1927, 74, x
- Hankins, O. G. See ELLIS and HANKINS, 1925, 66, 101
- Hann, Raymond M., and Sando, Charles E. Scyllitol from flowering dogwood (*Cornus florida*), 1926, 68, 399
- Hanna, M. I. See CAMPBELL and HANNA, 1926, 69, 703
- Hanzlik, P. J. See DE EDS and HANZLIK, 1924, 60, 355
- Harding, T. Swann. See TURNER, HARDING, and HARTMAN, 1927, 74, xxvii
- Harding, Victor John, and Gaebler, Oliver Henry. On the constancy of the creatine-creatinine excretion in children on a high protein diet, 1922, 54, 579
- and —. The influence of the positive nitrogen balance upon creatinuria during growth, 1923, 57, 25
- and Eagles, Blythe Alfred. The creatine content of brain, 1924, 60, 301
- , Allin, Kathleen Drew, and Van Wyck, H. B. The influence of sodium chloride upon the level of blood uric acid, 1924-25, 62, 61
- , —, Eagles, Blythe Alfred, and Van Wyck, H. B. The effect of high fat diets on the content of uric acid in blood, 1925, 63, 37
- , —, —, and —. The threshold of ketogenesis in pregnancy, 1925, 63, xlix
- and —. Ketosis in pregnancy, 1926, 69, 133
- and Montgomery, Richard Clifton. Nitrogen metabolism in the puerperium, 1927, 73, 27
- , Allin, Kathleen Drew, and Eagles, Blythe Alfred. Influence of fat and carbohydrate diets upon the level of blood uric acid, 1927, 74, 631
- Harington, Charles Robert. See DAKIN and HARINGTON, 1923, 55, 487
- See HASTINGS, VAN SLYKE, NEILL, HEIDELBERGER, and HARINGTON, 1924, 60, 89
- and Van Slyke, Donald D. On the determination of gases in blood and other solutions by vacuum extraction and manometric measurement. II, 1924, 61, 575
- Synthesis of 3,4,5-triiodophenylpyrrolidone carboxylic acid, a possible isomer of thyroxin, 1925, 64, 29
- Harned, Ben K. The sugar content of blood, 1925, 65, 555
- See NASH, 1925, 66, 869

Harned, Ben K.—*continued.*

— Oxidations induced by sugars, 1927, 74, xlvii

Harrington, Ethel R. See SANDIFORD and HARRINGTON, 1925, 63, xxxv

Harris, M. M., Lasker, Margaret, and Ringer, A. I. The effect of muscle and insulin on glucose *in vitro*, 1926, 69, 713

Harrop, George A., Jr. See BENEDICT and HARROP, 1922, 54, 443

— and Benedict, Ethel M. The participation of inorganic substances in carbohydrate metabolism, 1924, 59, 683

Harrow, Benjamin. See FUNK, HARROW, and PATON, 1923, 57, 153

— See NOVELLO, HARROW, and SHERWIN, 1926, 67, liv

— and Sherwin, Carl P. Synthesis of amino acids in the animal body. IV. Synthesis of histidine, 1926, 70, 683

Hart, E. B., Halpin, J. G., and Steenbock, H. The nutritional requirements of baby chicks. II. Further study of leg weakness in chickens, 1922, 52, 379

—, Steenbock, H., and Lepkovsky, Samuel. The anti-scorbutic vitamin. I. A study of its solubility from desiccated orange juice, 1922, 52, 241

—, —, Hoppert, C. A., and Humphrey, G. C. Dietary factors influencing calcium assimilation. II. The comparative efficiency of dry and

green alfalfa in maintaining calcium and phosphorus equilibrium in milking cows, 1922, 53, 21

—, —, —, Bethke, R. M., and Humphrey, G. C. Dietary factors influencing calcium assimilation. III. The comparative efficiency of timothy hay, alfalfa hay, and timothy hay plus calcium phosphate (steamed bone meal) in maintaining calcium and phosphorus equilibrium in milking cows, 1922, 54, 75

— See STEENBOCK, JONES, and HART, 1923, 55, xxvi

— See STEENBOCK, HART, SELL, and JONES, 1923, 56, 375

—, Steenbock, H., Hoppert, C. A., and Humphrey, G. C. Dietary factors influencing calcium assimilation. IV. The comparative efficiency of mixed green grasses and this same mixture plus steamed bone meal in maintaining calcium and phosphorus equilibrium in milking cows, 1923–24, 58, 43

—, —, Lepkovsky, Samuel, and Halpin, J. G. The nutritional requirements of baby chicks. III. The relation of light to the growth of the chicken, 1923–24, 58, 33

— See STEENBOCK, HART, JONES, and BLACK, 1923–24, 58, 59

— See STEENBOCK, JONES, and HART, 1923–24, 58, 383

—, Steenbock, H., Lepkovsky, Samuel, and Halpin, J. B.

- The nutritional requirements of baby chicks. IV. The chick's requirement for vitamin A, 1924, 60, 341
- See STEENBOCK, HART, and JONES, 1924, 61, 775
- , Steenbock, H., and Elvehjem, C. A. Dietary factors influencing calcium assimilation. V. The effect of light upon calcium and phosphorus equilibrium in mature lactating animals, 1924-25, 62, 117
- , —, Humphrey, G. C., and Hulce, R. S. New observations and a reinterpretation of old observations on the nutritive value of the wheat plant, 1924-25, 62, 315
- , —, Elvehjem, C. A., and Waddell, J. Iron in nutrition. I. Nutritional anemia on whole milk diets and the utilization of inorganic iron in hemoglobin building, 1925, 65, 67
- , —, and Lepkovsky, Samuel. Is the antirachitic factor of cod liver oil, when mixed with ground grains, destroyed through storage? 1925, 65, 571
- , —, Kletzien, S. W. F., Halpin, J. G., and Johnson, O. N. The nutritional requirement of the chicken. V. The influence of ultra-violet light on the production, hatchability, and fertility of the egg, 1925, 65, 579
- , —, and Halpin, J. G. The nutritional requirement of the chicken. VI. Does the chicken require vitamin C? 1925, 66, 813
- See LEPKOVSKY, HART, HASTINGS, and FRAZIER, 1925, 66, 49
- See STEENBOCK, HART, ELVEHJEM, and KLETZIEN, 1925, 66, 425
- See STEENBOCK, HART, HOPPERT, and BLACK, 1925, 66, 441
- , Steenbock, H., Elvehjem, C. A., Scott, H., and Humphrey, G. C. Dietary factors influencing calcium assimilation. VII. The influence of sunlight upon calcium equilibrium in milking cows, 1926, 67, 371
- See ELVEHJEM and HART, 1926, 67, 43
- , Steenbock, H., Kletzien, S. W. F., and Scott, H. Dietary factors influencing calcium assimilation. IX. Further observations on the influence of cod liver oil on calcium assimilation in lactating animals, 1926-27, 71, 271
- , —, Scott, H., and Humphrey, G. C. Dietary factors influencing calcium assimilation. VIII. The calcium level and sunlight as affecting calcium equilibrium in milking cows, 1926-27, 71, 263
- See ELVEHJEM, HERRIN, and HART, 1926-27, 71, 255
- , Elvehjem, C. A., Waddell, J., and Herrin, R. C. Iron in nutrition. IV. Nutritional anemia on whole milk diets and its correction with the ash of certain plant and animal tissues or with soluble iron salts, 1927, 72, 299

- Hart, E. B.**—*continued.*
- , **Steenbock, H., Scott, H., and Humphrey, G. C.** Dietary factors influencing calcium assimilation. X. The influence of ultra-violet light upon calcium and phosphorus metabolism in milking cows, 1927, 73, 59
 - See **STEENBOCK, HART, RISING, and HOPPERT,** 1927, 74, lxxiii
 - Hart, Merrill C., and Heyl, Frederick W.** The chemical investigations of corpus luteum. V. The lipoids of the acetone extract, 1925, 66, 639
 - See **CARTLAND and HART,** 1925, 66, 619
 - and **Heyl, Frederick W.** The chemical investigations of corpus luteum. VI. The lipoids of the ether extract, 1926, 70, 663
 - and —. VII. The cephalin fraction, 1926, 70, 675
 - See **TOURTELLOTTÉ and HART,** 1926-27, 71, 1
 - and **Heyl, Frederick W.** The chemical studies of the ovary. XII. The fatty acids of the lecithin from corpus luteum, 1927, 72, 395
 - See **HEYL and HART,** 1927, 75, 407
 - Hartman, Arthur M.** See **TURNER, HARDING, and HARTMAN,** 1927, 74, xxvii
 - Hartman, F. W.** See **BOLLIGER and HARTMAN,** 1925, 63, lvi
1925, 64, 91
 - Haskins, Howard D.** A new permanent standard for Sahli's hemoglobinometer, 1923, 57, 111
 - See **OSGOOD and HASKINS,** 1923, 57, 107
 - Lactose estimation uniform in technique with estimation of glucose in blood and urine, 1926, 67, lx
 - and **Osgood, Edwin E.** New hemoglobinometers, 1926, 67, lx
 - Hastings, A. Baird.** See **CULLEN and HASTINGS,** 1922, 52, 517
 - and **Van Slyke, Donald D.** The determination of the three dissociation constants of citric acid, 1922, 53, 269
 - See **AUSTIN, CULLEN, HASTINGS, McLEAN, PETERS, and VAN SLYKE,** 1922, 54, 121
 - See **VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL,** 1922, 54, 481
 - See **VAN SLYKE, HASTINGS, and NEILL,** 1922, 54, 507
 - , **Van Slyke, Donald D., Neill, James M., and Heidelberg, Michael.** The acid properties of hemoglobin, 1924, 59, xx
 - , —, —, —, and **Harington, Charles Robert.** Studies of gas and electrolyte equilibria in blood. VI. The acid properties of reduced and oxygenated hemoglobin, 1924, 60, 89
 - See **SALVESEN, HASTINGS, and McINTOSH,** 1924, 60, 311, 327
 - and **Sendroy, Julius, Jr.** Studies of acidosis. XX. The colorimetric determina-

- tion of blood pH at body temperature without buffer standards, 1924, 61, 695
- , —, Murray, Cecil D., and Heidelberger, Michael. Studies of gas and electrolyte equilibria in blood. VII. The effect of carbon monoxide on the acidity of hemoglobin, 1924, 61, 317
- , See NEILL and HASTINGS, 1925, 63, 479
- , See VAN SLYKE and HASTINGS, 1925, 63, xiii
- and Sendroy, Julius, Jr. The effect of variation in ionic strength on the apparent first and second dissociation constants of carbonic acid, 1925, 65, 445
- , —, and Robson, William. Studies of acidosis. XXI. The colorimetric determination of the pH of urine, 1925, 65, 381
- , See MURRAY and HASTINGS, 1925, 65, 265
- , See VAN SLYKE, HASTINGS, MURRAY, and SENDROY, 1925, 65, 701
- , Murray, Cecil D., and Sendroy, Julius, Jr. Studies of the solubility of calcium salts. I. The solubility of calcium carbonate in salt solutions and biological fluids, 1926-27, 71, 723
- , See SENDROY and HASTINGS, 1926-27, 71, 783, 797
- Hastings, E. G. See LEPKOVSKY, HART, HASTINGS, and FRAZIER, 1925, 66, 49
- Hathaway, Louis E., Jr. See FISKE, GOODELL, HATHAWAY, and WEST, 1926, 67, 385
- Hauge, Sigfred M. See CARRICK and HAUGE, 1925, 63, 115
- and Carrick, Carey W. The antiscorbutic properties of eggs, 1925, 64, 111
- and —. A differentiation between the water-soluble growth-promoting and antineuritic substances, 1926, 69, 403
- Hawes, Effie Ross. See STADIE and HAWES, 1927, 74, xxxi
- Hawkins, James A. A micro method for the determination of the hydrogen ion concentration of whole blood, 1923, 57, 493
- , The acid-base equilibrium of the blood of normal guinea pigs, rabbits, and rats, 1924, 61, 147
- , See VAN SLYKE and HAWKINS, 1927, 74, viii
- Hawley, Edith. See SEERMAN and HAWLEY, 1922, 53, 375
- Hawley, Estelle E., and Murlin, John R. The respiratory quotients of normal rabbits after the administration of insulin, 1924, 59, xxxii
- Hayashi, Toworu. See OKADA and HAYASHI, 1922, 51, 121
- Hearn, John E. See LYTTLE and HEARN, 1926, 68, 751
- Hedin, S. G. On the proteolytic enzymes of the spleen, 1922, 54, 177

- Heft, Hattie L.** See **EDDY**, **HEFT**, and **STEVENSON**, 1922, 51, 83
- See **EDDY** and **HEFT**, 1923, 55, xii
- , **Kahn, Max**, and **Gies, William J.** Cumulative tests of the possible toxicity of intarvin, with notes on its utility in the treatment of diabetes, 1925, 63, lvii
- Heidelberger, Michael.** A method for the preparation of crystalline oxyhemoglobin, 1922, 53, 31
- See **JACOBS** and **HEIDELBERGER**, 1922, 54, 253
- See **VAN SLYKE**, **HASTINGS**, **HEIDELBERGER**, and **NEILL**, 1922, 54, 481
- See **HASTINGS**, **VAN SLYKE**, **NEILL**, and **HEIDELBERGER**, 1924, 59, xx
- See **HASTINGS**, **VAN SLYKE**, **NEILL**, **HEIDELBERGER**, and **HARRINGTON**, 1924, 60, 89
- See **HASTINGS**, **SENDROY**, **MURRAY**, and **HEIDELBERGER**, 1924, 61, 317
- and **Goebel, Walther F.** The soluble specific substance of pneumococcus. IV. On the nature of the specific polysaccharide of Type III pneumococcus, 1926, 70, 613
- and —. V. On the chemical nature of the aldobionic acid from the specific polysaccharide of Type III pneumococcus, 1927, 74, 613
- Heller, V. G.** Studies on yeast. V. The vitamin B content of yeast, 1923, 55, 385
- See **NELSON**, **HELLER**, and **FULMER**, 1923, 57, 415
- , **McElroy, C. H.**, and **Garlock, Bertha.** The effect of the bacterial flora on the biological test for vitamin B, 1925, 65, 255
- and **Burke, A. D.** Toxicity of zinc, 1927, 74, 85
- Nutritive properties of the mung bean, 1927, 75, 435
- Helman, F. Dorothy.** See **HESS**, **WEINSTOCK**, and **HELMAN**, 1925, 63, 305
- See **HESS** and **HELMAN**, 1925, 64, 781
- Helmer, Oscar M.** See **ROSE**, **HELMER**, and **CHANUTIN**, 1927, 75, 543
- Henderson, L. J.**, **Bock, A. V.**, **Field, H., Jr.**, and **Stoddard, James L.** Blood as a physicochemical system. II, 1924, 59, 379
- and **Murray, Cecil D.** Blood as a physicochemical system. III. Deductions concerning the capillary exchange, 1925, 65, 407
- See **BOCK**, **DILL**, **HURXTHAL**, **LAWRENCE**, **COOLIDGE**, **DAILEY**, and **HENDERSON**, 1927, 73, 749
- See **DILL**, **VAN CAULAERT**, **HURXTHAL**, **STODDARD**, **BOCK**, and **HENDERSON**, 1927, 73, 251
- , **Dill, D. B.**, **van Caulaert, C.**, **Fölling, A.**, and **Coolidge, Thomas B.** The steady state of heavy work, 1927, 74, xxxvi
- , **Bock, A. V.**, **Dill, D. B.**, **Hurxthal, L. M.**, and **van Caulaert, C.** Blood as a

- physicochemical system.
VI. The composition and respiratory exchanges of human blood in terminal chronic nephritis,
1927, 75, 305
- Henderson, Marjorie, and Millet, John A. P. On the hydrogen ion determination of normal saliva,
1927, 75, 559
- Henderson, V. E. See LUCAS, BROWN, and HENDERSON,
1927, 74, lxxix
- Henderson, Yandell, and Haggard, Howard W. The maximum of human power, and the fuel of muscular work, from observations on the Olympic championship crew of 1924,
1925, 63, lxi
- See BROCKLEHURST and HENDERSON,
1927, 72, 665
- Hendrix, Byron M., and Sweet, Joshua E. The effect of Eck's fistula upon pancreatic diabetes in dogs,
1923, 55, 161
- and Sanders, Jason P. The effect of injections of sodium phosphates and sodium hippurate upon the excretion of acid and ammonia by the kidney,
1923-24, 58, 503
- and McAmis, Ava J. Alkalosis in dogs following injection of hydrazine sulfate,
1924, 59, xxii
- and Bodansky, Meyer. The relation of acidosis and hyperglucemia to the excretion of acids, bases, and sugar in uranium nephritis,
1924, 60, 657
- and McAmis, Ava J. Alkalosis produced by injections of hydrazine sulfate in dogs,
1924, 61, 45
- and Calvin, Dea B. The loss of bases in diuresis and its effect upon the alkali reserve of the blood,
1925, 65, 197
- , Fay, Marion, Calvin, Dea B., and Bodansky, Meyer. The effect of excretion of acids and bases upon the development of acidosis in experimental diabetes,
1926, 69, 449
- A method for the determination of small amounts of copper in protein and other organic materials,
1927, 74, vii
- Hendry, Jessie L. See COHN, HENDRY, and PRENTISS,
1925, 63, 721
- Henley, R. R. The determination of globulins in blood serum,
1922, 52, 367
- Changes in the proteins and the gelatification of formalized blood serum,
1923, 57, 139
- Henning, B. H. The lipoids of the blood in tuberculosis,
1922, 53, 167
- Hepburn, John. See CAMPBELL, FLETCHER, HEPBURN, and MARKOWITZ,
1926, 67, lvii
- See CAMPBELL and HEPBURN,
1926, 68, 575
- Hepburn, Joseph S. Studies on by-product yeast,
1923, 55, xli
- The titer value of chicken fat,
1923, 55, xlii

- Herrick, Horace T. See MAY, HERRICK, THOM, and CHURCH, 1927, 75, 417
- Herrin, R. C. See ELVEHJEM, HERRIN, and HART, 1926-27, 71, 255
- See HART, ELVEHJEM, WADDELL, and HERRIN, 1927, 72, 299
- Hertzman, A. B., and Bradley, H. C. Digestibility of proteins and the isoelectric point, 1924, 59, xix
- and —. Studies of autolysis. XI. Relation of the isoelectric point to digestibility, 1924, 61, 275
- and —. XIII. The kinetics of the autolytic mechanism, 1924-25, 62, 231
- and —. The inhibition of autolysis by protein, 1925, 63, xxxvii
- Hess, Alfred F., Supplee, G. C., and Bellis, B. Copper as a constituent in woman's and cow's milk. Its absorption and excretion by the infant, 1923, 57, 725
- , Weinstock, Mildred, and Tolstoi, Edward. The influence of the diet during the preexperimental period on the susceptibility of rats to rickets, 1923, 57, 731
- and —. Antirachitic properties imparted to inert fluids and to green vegetables by ultra-violet irradiation, 1924-25, 62, 301
- and —. A further report on imparting antirachitic properties to inert substances by ultra-violet irradiation, 1925, 63, xxv, 297
- , —, and Helman, F. Dorothy. The antirachitic value of irradiated phyto-sterol and cholesterol. I, 1925, 63, 305
- and Helman, F. Dorothy. The phosphatide and total phosphorus content of woman's and cow's milk, 1925, 64, 781
- and Weinstock, Mildred. The antirachitic value of irradiated cholesterol and phytosterol. II. Further evidence of change in biological activity, 1925, 64, 181
- and —. III. Evidence of chemical change as shown by absorption spectra, 1925, 64, 193
- , —, and Sherman, Elizabeth. The antirachitic value of irradiated cholesterol and phytosterol. IV. Factors influencing its biological activity, 1925, 66, 145
- , —, and —. V. Chemical and biological changes, 1926, 67, 413
- , —, and —. VI. A separation into an active and an inactive fraction, 1926, 70, 123
- and Sherman, Elizabeth. The antirachitic value of irradiated cholesterol and phytosterol. VII. The effect of irradiated cholesterol on the phosphorus and calcium balance, 1927, 73, 145
- and Anderson, R. J. The antirachitic value of irradiated cholesterol and phytosterol. VIII. The activation of sterile fractions by ultra-violet irradiation, 1927, 74, 651

- , Berg, Benjamin N., and Sherman, Elizabeth. Changes in calcium level of the blood following section of the sympathetic or of the spinal cord, 1927, 74, xxvii
- Hess, J. S. See BRUNQUIST, SCHNELLER, and LOEVENHART, 1924-25, 62, 93
- Hessler, M. C. See SHERMAN and HESSLER, 1927, 73, 113
- Hetler, Donald M. The chemical study of bacteria. XIV. A preliminary study of *Bacillus lactis aerogenes* grown on synthetic media, 1927, 72, 573
- Heukelekian, H., and Waksmann, Selman A. Carbon and nitrogen transformations in the decomposition of cellulose by filamentous fungi, 1925, 66, 323
- Heusinkveld, C. T. See RALLS, JORDAN, HEUSINKVELD, and DOISY, 1926, 67, v
- Heyl, Frederick W. See HART and HEYL, 1925, 66, 639
1926, 70, 663, 675
1927, 72, 395
- and Hart, Merrill C. The chemical studies of the ovary. XIII. The water-soluble extractives of ovarian residue, 1927, 75, 407
- Hibbard, R. P. See DOBY and HIBBARD, 1927, 73, 405
- Hijkata, Yoshizumi. Do the amino acids occur in cow's milk? 1922, 51, 165
- The influence of putrefaction products on cellular metabolism. II. On the influence of phenylacetic and phenylpropionic acids on the distribution of nitrogen in the urine, 1922, 51, 141
- On the cleavage products of the crystalline lens, 1922, 51, 155
- Hill, A. V. The interactions of oxygen, acid, and carbon dioxide in blood, 1922, 51, 359
- Hill, Elsie, and Bloor, W. R. Fat excretion, 1922, 53, 171
- See BLATHERWICK, BELL, and HILL, 1924, 59, xxxv
- See BLATHERWICK, LONG, BELL, MAXWELL, and HILL, 1924, 59, xxxvi
- See BLATHERWICK, BELL, and HILL, 1924, 61, 241
- See BLATHERWICK, BELL, HILL, and LONG, 1925, 66, 801
- See BISCHOFF, BLATHERWICK, and HILL, 1927, 74, lxxix
- See BLATHERWICK, SAHYUN, and HILL, 1927, 75, 671
- Hill, Robert M., and Lewis, Howard B. The metabolism of sulfur. VII. The oxidation of some sulfur compounds related to cystine in the animal organism, 1924, 59, 557
- and —. VIII. The behavior of thiophenol and thiocresol in the animal organism, 1924, 59, 569

- Hiller, Alma, and Van Slyke, Donald D. A study of certain protein precipitants, 1922, 53, 253
- , Linder, Geoffrey C., and Van Slyke, Donald D. The reducing substances of the blood, 1925, 64, 625
- , The effect of histamine on the acid-base balance, 1926, 68, 833
- , The effect of histamine on protein catabolism, 1926, 68, 847
- , See VAN SLYKE and HILLER, 1926, 68, 323
- , See VAN SLYKE, HILLER, and BERTHELTSEN, 1927, 74, 659
- Himwich, Harold E. See BARR and HIMWICH, 1923, 55, 525, 539
- , See BARR, HIMWICH, and GREEN, 1923, 55, 495
- , and Barr, David P. Studies in the physiology of muscular exercise. V. Oxygen relationships in the arterial blood, 1923, 57, 363
- , Loebel, Robert O., and Barr, David P. Studies of the effect of exercise in diabetes. I. Changes in acid-base equilibrium and their relation to the accumulation of lactic acid and acetone, 1924, 59, 265
- , See LOEBEL, BARR, TOLSTOI, and HIMWICH, 1924, 61, 9
- Hinegardner, W. S. See EDGAR and HINEGARDNER, 1923, 56, 881
- Hirsch, Edwin F. Changes in the hydrogen ion concentration of the blood with coagulation, 1924, 61, 795
- , The adsorption of indicator (cresol red) by serum in the spectrophotometric determination of the pH, 1925, 63, 55
- Hjort, Axel M. The influence of orally administered calcium salts on the serum calcium of normal and thyreoparathyroprivic dogs, 1925, 65, 783
- , Robison, S. C., and Tendick, F. H. An extract obtained from the external bovine parathyroid glands capable of inducing hypercalcemia in normal and thyreoparathyroprivic dogs, 1925, 65, 117
- , North, H. B., and Tendick, F. H. The parathyroid hormone, 1926, xxxvi
- Hobson, S. See TOLSTOI and HOBSON, 1926, 55, 183
- van der Hoeven, B. J. C. See LEVENE and VAN DER HOEVEN, 1924, 61, 429
- , 1925, 65, 483
- Hoffman, Walter F. Sulfur in proteins. II. The effect of mild alkaline hydrolysis upon hair, 1925, 65, 251
- , and Gortner, Ross Aiken. The electro dialysis of agar. A method for the preparation of the free agar-acid, 1925, 65, 371
- , An alcohol-soluble protein isolated from polished rice, 1925, 66, 501
- , See GORTNER and HOFFMAN, 1926, 70, 457
- , 1927, 72, 433
- Hoffman, William S. The isolation of crystalline

- adenine nucleotide from blood, 1925, 63, 675
- . The micro determination of pentose in yeast nucleic acid and its derivatives, 1927, 73, 15
- Hoffmann, Alexander.** See **JACOBS and HOFFMANN**, 1926, 67, 333, 609
1926, 69, 153
- . See **JACOBS, HOFFMANN**, and **GUSTUS**, 1926, 70, 1
- . See **JACOBS and HOFFMANN**, 1927, 74, 787
- Hogan, Albert G., Guerrant, Nollie B., and Kempster, Harry L.** Concerning the adequacy of synthetic diets for the growth of the chick, 1925, 64, 113
- Holbøll, Svend Aage.** See **LUNDGAARD and HOLBØLL**, 1924-25, 62, 453
1925, 65, 305, 323, 343, 363
1926, 68, 439, 457, 475, 485
1926, 70, 71
- . See **LUNDGAARD, HOLBØLL**, and **GOTTSCHALK**, 1926, 70, 79, 83, 89
- Hollander, Franklin.** See **NELSON and HOLLANDER**, 1923-24, 58, 291
- . The mechanism of gastric secretion. Preliminary report on a technique for collecting gastric juice of constant and reproducible pH, 1927, 74, xxiii
- Holly, Olive M.** See **BAUMANN and HOLLY**, 1923, 55, 457
1924, 59, xxv
1925, 63, lxiii
- Holmes, Arthur D., and Kerr, Robert H.** Notes on the ether extract of feces, 1923-24, 58, 377
- Holt, L. Emmett, Jr.** Studies in calcification. III. A quantitative study of the equilibria concerned with the calcification of bone, 1925, 64, 579
- , **La Mer, Victor K., and Chown, H. Bruce.** Studies in calcification. I. The solubility product of secondary and tertiary calcium phosphate under various conditions, 1925, 64, 509
- , —, and —. II. Delayed equilibrium between the calcium phosphates and its biological significance, 1925, 64, 567
- . The solubility of tertiary calcium phosphate in cerebrospinal fluid, 1925, 66, 23
- Honeywell, Hannah E., Dutcher, R. Adams, and Dahle, Chester D.** Vitamin D in evaporated milks made by vacuum and aeration methods, 1927, 74, lxxvii
- . See **DUTCHER, HONEYWELL**, and **DAHLE**, 1927, 75, 85
- Hoobler, B. Raymond.** See **MACY, OUTHOUSE, LONG**, and **HOOBLER**, 1926, 67, li
- . See **MACY, OUTHOUSE, LONG, BROWN, HUNSCHER**, and **HOOBLER**, 1927, 74, xxxi
- Hopkins, Frederick Gowland, and Dixon, M.** On glutathione. II. A thermostable oxidation-reduction system, 1922, 54, 527
- . On the isolation of glutathione, 1927, 72, 185

- Hoppert, C. A. See HART, STEENBOCK, HOPPERT, and HUMPHREY, 1922, 53, 21
- See HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY, 1922, 54, 75
- See HART, STEENBOCK, HOPPERT, and HUMPHREY, 1923-24, 58, 43
- See STEENBOCK, BLACK, NELSON, NELSON, and HOPPERT, 1925, 63, xxv
- See STEENBOCK and BLACK, 1925, 64, 263
- See STEENBOCK, HART, HOPPERT, and BLACK, 1925, 66, 441
- See STEENBOCK, HART, RISING, and HOPPERT, 1927, 74, lxxiii
- Hopping, Aleita, and Scott, Ernest L. Nitrogen distribution in the blood and urine of the alligator, 1923, 55, xxxiii
- Horvath, A. A. Changes in the blood composition of rabbits fed on raw soy beans, 1926, 68, 343
- Ammonia and blood sugar, 1926, 70, 289
- Hoskins, F. Meredith, and Snyder, Franklin F. Observations on the absence of hypoglycemia after the intraperitoneal injection of insulin in well fed rabbits, 1927, 75, 147
- Hoskins, W. M. See DE ABERLE, HOSKINS, and BODANSKY, 1927, 72, 643
- Howard, Frederick H. See KING and HOWARD, 1927, 75, 27
- Howe, Paul E. The differential precipitation of the proteins of colostrum and a method for the determination of the proteins in colostrum, 1922, 52, 51
- The relation between age and the concentrations of protein fractions in the blood of the calf and cow, 1922, 53, 479
- The determination of fibrinogen by precipitation with sodium sulfate compared with the precipitation of fibrin by the addition of calcium chloride, 1923, 57, 235
- The relative precipitating capacity of certain salts when applied to blood serum or plasma and the influence of the cation in the precipitation of proteins, 1923, 57, 241
- The differential extraction and precipitation of the soluble proteins of muscle, with data on the concentration of proteins in the muscle of the calf, cow, and rabbit, 1924, 61, 493
- and Sanderson, Everett S. Variations in the concentration of the globulin and albumin fractions of the blood plasma of young calves and a cow following the injection of *Bacillus abortus*. Variations in the concentration of the protein fractions of the blood plasma of pregnant and non-pregnant cows or of cows which have aborted, 1924-25, 62, 767
- Howland, John, Marriott, W. McKim, and Kramer, Ben-

- jamin.** Studies upon the inorganic composition of bones, 1926, 68, 721
- See **KRAMER** and **HOWLAND**, 1926, 68, 711
- Hubbard, Roger S., and Nicholson, Samuel T., Jr.** The acetonuria of diabetes, 1922, 53, 209
- and **Munford, Samuel A.** The excretion of acid and ammonia, 1922, 54, 465
- Ingested fat and body fat as precursors of the acetone bodies, 1923, 55, 357
- See **SUMNER** and **HUBBARD**, 1923, 56, 701
- and **Wright, Floyd R.** Diet and the border-line of acetonuria, 1923, 57, 115
- The excretion of ammonia and nitrogen, 1923-24, 58, 711
- and **Wright, Floyd R.** Variations in the rate of excretion of the acetone bodies during the day, 1924, 61, 377
- and **Noback, Charles V.** Note on the concentration of the acetone bodies in normal blood and urine, 1925, 63, 391
- A colorimetric method for the determination of sulfate in serum, 1927, 74, v
- Hubbell, Rebecca B., and Mendel, Lafayette B.** Zinc and normal nutrition, 1927, 75, 567
- Huber, John F.** See **BODEY, LEWIS, and HUBER**, 1927, 75, 715
- Huddlestun, Bernice T.** See **ROSE** and **HUDDLESTUN**, 1926, 69, 599
- Huffman, C. F.** See **ROBINSON** and **HUFFMAN**, 1926, 67, 245, 257
- and **Robinson, Charles Summers.** Studies on the chemical composition of beef blood. III. The blood picture of calves on a sole diet of milk or of milk with the addition of various supplements, 1926, 69, 101
- See **ROBINSON, HUFFMAN, and BURT**, 1927, 73, 477
- Hughes, J. S., Nitcher, Charles, and Titus, R. W.** The relative value of ultra-violet light and irradiated air in preventing rickets in chickens, 1925, 63, 205
- , **Payne, L. F., Titus, R. W., and Moore, J. N.** The relation between the amount of ultra-violet light received by hens and the amount of antirachitic vitamin in the eggs produced, 1925, 66, 595
- and **Titus, R. W.** Should leg weakness in growing chicks be called rickets? 1926, 69, 289
- , **Fitch, J. B., Cave, H. W., and Riddell, W. H.** Relation between the vitamin C content of a cow's ration and the vitamin C content of its milk, 1926-27, 71, 309
- , **Latshaw, W. L., and Smits, B. L.** Variation in chemical composition of hen's blood accompanying egg production, 1927, 74, xxx
- Hughes, T. P.** See **PETERSEN** and **HUGHES**, 1925, 63, 179
1925, 66, 229

- Hulce, R. S.** See **HART, STEENBOCK, HUMPHREY, and HULCE**, 1924-25, 62, 315
- Hume, H. V., and Denis, W.** Polarimetric observations on solutions of glucose after contact with the intestinal mucosa, 1924, 59, 457
- , —, **Silverman, D. N.**, and **Irwin, E. L.** Hydrogen ion concentration in the human duodenum, 1924, 60, 633
- See **DENIS and HUME**, 1924, 60, 603
- Humphrey, G. C.** See **HART, STEENBOCK, HOPPERT, and HUMPHREY**, 1922, 53, 21
- See **HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY**, 1922, 54, 75
- See **HART, STEENBOCK, HOPPERT, and HUMPHREY**, 1923-24, 58, 43
- See **HART, STEENBOCK, HUMPHREY, and HULCE**, 1924-25, 62, 315
- See **HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY**, 1926, 67, 371
- See **HART, STEENBOCK, SCOTT, and HUMPHREY**, 1926-27, 71, 263
- 1927, 73, 59
- Humphrey, Gertrude J.** Preservation of vitamin C in dried orange juice, 1926, 69, 511
- See **McCLENDON, HUMPHREY, and LOUCKS**, 1926, 69, 513
- See **MEDES and HUMPHREY**, 1927, 74, 149
- Hunscher, Helen.** See **MACY, outhouse, LONG, BROWN, HUNSCHER, and HOOBLER**, 1927, 74, xxxi
- Hunt, Charles H.** See **FORBES, SCHULZ, HUNT, WINTER, and REMLER**, 1922, 52, 281
- , **Winter, A. R.**, and **Miller, R. C.** A possible factor influencing the assimilation of calcium, 1923, 55, 739
- Hunt, Louise.** See **BAUMANN and HUNT**, 1925, 64, 709
- Hunter, Andrew, and Borsook, Henry.** Nitrogen distribution in globin, 1923, 57, 507
- and **Smith, Ralph G.** The liberation of ammonia in tryptic digestion, 1924-25, 62, 649
- and **Dauphinee, James A.** The determination of arginine by the use of arginase, with applications to the analysis of proteins and the study of tryptic digestion, 1925, 63, xxxix
- See **EADIE and HUNTER**, 1926, 67, 237
- and **Morrell, Joseph A.** Some characteristics of the enzyme arginase, 1927, 74, lx
- Hunter, George.** See **BULMER, EAGLES, and HUNTER**, 1925, 63, 17
- and **Eagles, Blythe Alfred.** The isolation from blood of a hitherto unknown substance, and its bearing on present methods for the estimation of uric acid, 1925, 65, 623
- and —. The colorimetric estimation of cystine and glutathione, 1927, 72, 177

- and —. Glutathione. A critical study, 1927, 72, 147
- and —. Non-protein sulfur compounds of blood. I. Sympectothion, 1927, 72, 123
- and —. II. Glutathione, 1927, 72, 133
- and —. On the presence of cystine in liver, 1927, 72, 167
- Hurd, Archer L. See REDFIELD, COOLIDGE, and HURD, 1926, 69, 475
- Hurxthal, L. M. See BOCK, DILL, HURXTHAL, LAWRENCE, COOLIDGE, DAILEY, and HENDERSON, 1927, 73, 749
- See DILL, VAN CAULAERT, HURXTHAL, STODDARD, BOCK, and HENDERSON, 1927, 73, 251
- See DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK, 1927, 74, 303
- See DILL, LAWRENCE, HURXTHAL, and BOCK, 1927, 74, 313
- See HENDERSON, BOCK, DILL, HURXTHAL, and VAN CAULAERT, 1927, 75, 305
- Husa, W. J. See ROCKWOOD and HUSA, 1923, 55, v
- Hutton, Mary K. See PARSONS and HUTTON, 1924, 59, 97
- See DANIELS and HUTTON, 1925, 63, 143
- Hyde, Elizabeth C., and Lewis, Howard B. Lipase studies. II. A comparison of the hydrolysis of the esters of the dicarboxylic acids by the lipase of the liver, 1923, 56, 7
- Ickstadt, Albert. See BLUMENSTOCK and ICKSTADT, 1924, 61, 91
- Illievitz, A. B. See SIMPSON, 1924, 59, 107
- The presence of an unknown substance in diabetes insipidus urine, 1926-27, 71, 693
- Irish, Oliver J. See ROE, IRISH, and BOYD, 1926, 67, 579
- 1927, 75, 685
- Irving, Laurence. The carbonic acid-carbonate equilibrium and other weak acids in sea water, 1925, 63, 767
- The relation of solubility to the absorption of calcium salts from the intestine, 1926, 68, 513
- The solubility of calcium in serum, 1926, 68, 239
- Irwin, E. L. See HUME, DENIS, SILVERMAN, and IRWIN, 1924, 60, 633
- Isaacs, M. L. A colorimetric determination of blood chlorides, 1922, 53, 17
- Isbell, H. S. See ELLIS and ISBELL, 1926, 69, 219, 239
- Ishikawa, Y. See SUPNIEWSKI, ISHIKAWA, and GEILING, 1927, 74, 241
- Izume, Seijichi, and Lewis, Howard B. The influence of hydrazine and its derivatives on metabolism. III. The mechanism of hydrazine hypoglycemia, 1926-27, 71, 51
- See LEWIS and IZUME, 1926-27, 71, 33

- Jackson, Deborah.** See OSBORNE, MENDEL, PARK, and WINTERNITZ, 1926-27, 71, 317
- Jackson, Henry, Jr., and Palmer, Walter W.** A note on the determination of uric acid, 1922, 53, 373
- **Studies in nuclein metabolism. I. Adenine nucleotide in human blood,** 1923, 57, 121
- **II. The isolation of a nucleotide from human blood,** 1924, 59, 529
- **and Riggs, Margaret D.** The effect of high protein diets on the kidneys of rats, 1926, 67, 101
- **Sherwood, David W., and Moore, Olive J.** The blood peptide nitrogen in arterial hypertension, 1927, 74, 231
- Jackson, Richard W.** Indole derivatives in connection with a diet deficient in tryptophane, 1927, 73, 523
- Jacobs, Walter A., and Heidelberger, Michael.** Strophanthin. I. Strophanthidin, 1922, 54, 253
- **Strophanthin. II. The oxidation of strophanthidin,** 1923, 57, 553
- **III. Crystalline Kombe strophanthin. Preliminary note,** 1923, 57, 569
- **and Collins, Arnold M.** Strophanthin. IV. Anhydrostrophanthidin and dianhydrostrophanthidin, 1924, 59, 713
- **and —.** V. The isomerization and oxidation of isostrophanthidin, 1924, 61, 387
- **Saponins. I. The saponin obtained from soap-nuts,** 1925, 63, 621
- **II. On the structure of hederagenin,** 1925, 63, 631
- **and Collins, Arnold M.** Strophanthin. VI. The anhydrostrophanthidins and their behavior on hydrogenation, 1925, 63, 123
- **Saponins. III. The saponin occurring in *Sapindus saponaria* L. and *Sapindus mukorossi* utilis (Trabuti),** 1925, 64, 379
- **and Collins, Arnold M.** Strophanthin. VII. The double bond of strophanthidin, 1925, 64, 383
- **and —.** VIII. The carbonyl group of strophanthidin, 1925, 65, 491
- **and Hoffmann, Alexander.** Strophanthin. IX. On crystalline Kombe strophanthin, 1926, 67, 609
- **and —.** The structural relationship of the cardiac poisons, 1926, 67, 333
- **and Gustus, Edwin L.** Saponins. IV. The oxidation of hederagenin methyl ester, 1926, 69, 641
- **and Hoffmann, Alexander.** Strophanthin. X. On K-strophanthin- β and other Kombe strophanthins, 1926, 69, 153
- **—, and Gustus, Edwin L.** The association of the double bond with the lactone group in the cardiac aglucones, 1926, 70, 1

- and Gustus, Edwin L. Strophanthin. XI. The hydroxyl groups of strophanthidin, 1927, 74, 795
- and —. XII. The oxidation of trianhydrostrophanthidin, 1927, 74, 805
- and —. XIII. Isostrophanthidin and its derivatives, 1927, 74, 811
- and —. XIV. Isomerization in the isostrophanthidin series, 1927, 74, 829
- and Hoffmann, Alexander. The relationship between the structure and the biological action of the cardiac glucosides, 1927, 74, 787
- James, A. A., Laughton, N. B., and Macallum, A. Bruce. Notes on the chemistry and physiology of the antipressor fraction from hepatic tissue, 1926, 67, vi
- James, Mildred S. See BLOOR, GILLETTE, and JAMES, 1927, 75, 61
- Jendrassik, Aladár. A color test for water-soluble B, 1923, 57, 129
- Jersey, Vernon. See MORRIS and JERSEY, 1923, 55, xviii
- See BEARD and JERSEY, 1923, 56, 31
- See BEARD and JERSEY, 1926, 70, 167
- Johns, Carl O., and Gersdorff, Charles E. F. The proteins of the tomato seed, *Solanum esculentum*, 1922, 51, 439
- , Chernoff, Lewis H., and Viehoveer, Arno. A saponin from *Agave lechuguilla* Torrey, 1922, 52, 335
- See FINKS, JONES, and JOHNS, 1922, 52, 403
- See JONES, GERSDORFF, JOHNS, and FINKS, 1922, 53, 231
- See WATERMAN, JOHNS, and JONES, 1923, 55, 93
- Johnson, J. M., and Voegtlin, Carl. On the preparation and properties of pure glutathione (glutaminy-cysteine), 1927, 75, 703
- Johnson, O. N. See HART, HALPIN, and STEENBOCK, 1922, 52, 379
- See HART, STEENBOCK, LEPKOVSKY, KLETZIEN, HALPIN, and JOHNSON, 1925, 65, 579
- Johnson, Treat B., and Brown, Elmer B. The preparation of nucleic acid from the nucleoprotein of tubercle bacilli (tuberculinic acid), 1922, 54, 721
- and —. The pyrimidines contained in tuberculinic acid. The nucleic acid of tubercle bacilli, 1922, 54, 731
- See BROWN and JOHNSON, 1923, 57, 199
- and Daschavsky, P. G. Researches on amines. X. The formation of tyramine by decarboxylation of tyrosine produced from silk, 1924-25, 62, 725
- and —. Researches on proteins. VIII. The destructive distillation of the fibroin of silk, 1924-25, 62, 197
- and Coghill, Robert D. The distribution of nitrogen in the protein fraction of tubercle bacilli after removal of tuberculinic acid, 1925, 63, 225

- Johnston, C. G. See DOISY, ALLEN, RALLS, and JOHNSTON, 1924, 59, xliii
- See DOISY, RALLS, ALLEN, and JOHNSTON, 1924, 61, 711
- Jonas, Leon. See CULLEN and JONAS, 1923, 57, 541
- , Miller, T. Grier, and Teller, Ida. A study of all-day blood sugar curves in non-diabetic individuals and in diabetic patients treated with and without insulin, 1925, 63, lv
- Jones, D. Breese, Finks, A. J., and Gersdorff, Charles E. F. A chemical study of the proteins of the adzuki bean, *Phaseolus angularis*, 1922, 51, 103
- , —, and Waterman, Henry C. A note on the nutritional adequacy of the proteins of the Chinese and Georgia velvet beans with reference to amino acid composition, 1922, 52, 209
- and Waterman, Henry C. Studies on the digestibility of proteins *in vitro*. III. On the chemical nature of the nutritional deficiencies of arachin, 1922, 52, 357
- See FINKS, JONES, and JOHNS, 1922, 52, 403
- , Gersdorff, Charles E. F., Johns, Carl O., and Finks, A. J. The proteins of the lima bean, *Phaseolus lunatus*, 1922, 53, 231
- See WATERMAN, JOHNS, and JONES, 1923, 55, 93
- and Gersdorff, Charles E. F. Proteins of the cantaloupe seed, *Cucumis melo*. Isolation of a crystalline globulin, and a comparative study of this globulin with the crystalline globulin of the squash seed, *Cucurbita maxima*, 1923, 56, 79
- and Waterman, Henry C. Studies on the digestibility of proteins *in vitro*. IV. On the digestibility of the cottonseed globulin and the effect of gossypol upon the peptic-tryptic digestion of proteins, 1923, 56, 501
- and Gersdorff, Charles E. F. Proteins of wheat bran. I. Isolation and elementary analyses of a globulin, albumin, and prolamine, 1923-24, 58, 117
- and Murphy, Joseph C. Cystine deficiency and vitamin content of the lentil, *Lens esculenta* Moench, 1924, 59, 243
- , Gersdorff, Charles E. F., and Moeller, Otto. The tryptophane and cystine content of various proteins, 1924-25, 62, 183
- and —. Proteins of the bark of the common locust tree, *Robinia pseudacacia*, Linn., 1925, 63, xlv
- and Csonka, Frank A. Proteins of the cottonseed, 1925, 64, 673
- and Gersdorff, Charles E. F. Proteins of wheat bran. II. Distribution of nitrogen, percentages of amino acids and of free amino nitrogen: a comparison of the bran proteins with the corresponding proteins of wheat endosperm and embryo, 1925, 64, 241

- , —, and Moeller, Otto. Proteins of the bark of the common locust tree, *Robinia pseudacacia*. I. Enzymes associated with the proteins: the composition, properties, nitrogen distribution, and some of the amino acids of the albumin, 1925, 64, 655.
- , Moeller, Otto, and Gersdorff, Charles E. F. The nitrogen distribution and percentages of some amino acids in the muscle of the shrimp, *Peneus setiferus* (L.), 1925, 65, 59.
- and Csonka, Frank A. Studies on glutelins, 1926, 67, ix.
- See MURPHY and JONES, 1926, 69, 85.
- See CSONKA and JONES, 1927, 73, 321.
- and Csonka, Frank A. Studies on glutelins. II. The glutelin of rice (*Oryza sativa*), 1927, 74, 427.
- and Gersdorff, Charles E. F. The globulins of rice, *Oryza sativa*, 1927, 74, 415.
- and Moeller, Otto. Determination of aspartic and glutamic acids in proteins, 1927, 74, liv.
- See CSONKA and JONES, 1927, 74, liv.
- and Gersdorff, Charles E. F. Proteins of sesame seed, *Sesamum indicum*, 1927, 75, 213.
- Jones, James H. See STEENBOCK, JONES, and HART, 1923, 55, xxvi.
- See STEENBOCK, SELL, and JONES, 1923, 55, 411.
- See STEENBOCK, HART, SELL, and JONES, 1923, 56, 375.
- See STEENBOCK, SELL, and JONES, 1923, 56, 345.
- See STEENBOCK, HART, JONES, and BLACK, 1923-24, 58, 59.
- See STEENBOCK, JONES, and HART, 1923-24, 58, 383.
- See STEENBOCK, HART, and JONES, 1924, 61, 775.
- The effect of the administration of cod liver oil upon thyroparathyroidectomized dogs, 1926, 70, 647.
- The relation of the inorganic constituents of a ration to the production of ophthalmia in rats, 1927, 75, 139.
- Jones, Walter, and Perkins, Marie E. The formation of nucleotides from yeast nucleic acid by the action of sodium hydroxide at room temperature, 1923, 55, 567.
- and —. The gravimetric determination of organic phosphorus, 1923, 55, 343.
- and —. The nucleotides formed by the action of boiled pancreas on yeast nucleic acid, 1923, 55, 557.
- and —. The nitrogenous groups of plant nucleic acid, 1924-25, 62, 557.
- and —. The occurrence of plant nucleotides in animal tissues, 1924-25, 62, 291.

- Jones, Walter.**—*continued.*
 —. See CALVERY and JONES, 1927, 73, 73
- Jordan, C. N.** See RALLS, JORDAN, HEUSINKVELD, and DOISY, 1926, 67, v
- . See RALLS, JORDAN, and DOISY, 1926, 69, 357
- Juday, C.** See DOMOGALLA, JUDAY, and PETERSON, 1925, 63, 269
- K**
- Kahlenberg, Louis.** On some new color reactions of cholesterol, 1922, 52, 217
- . On the passage of boric acid through the skin by osmosis, 1924-25, 62, 149
- . See STEINLE and KAHLENBERG, 1926, 67, 425
- Kahn, Bernard S.** See ROE and KAHN, 1926, 67, 585
- Kahn, George, and Stokes, Joseph, Jr.** The comparison of the electrometric and colorimetric methods for determination of the pH of gastric contents, 1926, 69, 75
- Kahn, Max.** See HEFT, KAHN, and GIES, 1925, 63, lvii
- Kai, Sotaro.** A method of quantitative determination of trypsin. A modification of Gross' method, 1922, 52, 133
- Kapsinow, Robert.** See UNDERHILL and KAPSINOW, 1922, 54, 451, 459, 717
- Karelitz, Samuel.** See UNDERHILL and KARELITZ, 1923-24, 58, 147
- . See SHOHL and KARELITZ, 1926, 67, xxvii
- . See SHOHL and KARELITZ, 1926-27, 71, 119
- and Shohl, Alfred T. Rickets in rats. I. Metabolism studies on high calcium-low phosphorus diets, 1927, 73, 655
- and —. II. The effect of phosphate added to the diet of ricketic rats, 1927, 73, 665
- Karr, Walter G.** See DU VIGNEAUD and KARR, 1925, 66, 281
- . See OSER and KARR, 1926, 67, 319
- . See REINHOLD and KARR, 1927, 72, 345
- Kasahara, Michio, and Uetani, Eikichi.** The effect of insulin upon the reducing substance in the cerebrospinal fluid of normal rabbits, 1924, 59, 433
- Katayama, Ichiro, and Killian, John A.** Changes in the sugar, inorganic phosphorus, and lactic acid of animal and human blood after administration of insulin and of glucose, 1926-27, 71, 707
- Keeler, H. R.** See CULLEN, KEELER, and ROBINSON, 1925, 66, 301
- Keenan, George L.** The optical properties of some amino acids, 1924-25, 62, 163
- Keith, H. M.** See MCQUARRIE and KEITH, 1927, 74, xvi
- Keith, M. Helen.** See MITCHELL, BEADLES, and KEITH, 1926-27, 71, 15
- Keltch, Anna K.** See ROCKWOOD and KELTCH, 1926, 67, lvi
- . See GAEBLER and KELTCH, 1926, 70, 763
- , 1927, 74, xx

- Kempster, Harry L.** See HOGAN, GUERRANT, and KEMPSTER, 1925, 64, 113
- Kendall, Edward C.** The chemical reactions involved in the physiological functioning of thyroxin, 1924, 59, xxxix
- The quantitative study of the physiologic action of thyroxin, 1925, 63, xi
- The chemical configuration of thyroxin and its mode of action in the tissues, 1926, 67, iii
- and Ort, John M. The oxidation-reduction potentials of 2-oxydihydroindole-3-propionic acid and some of its halogen derivatives, 1926, 68, 611
- and Nord, F. F. Reversible oxidation-reduction systems of cysteine-cystine and reduced and oxidized glutathione, 1926, 69, 295
- Isolation of thyroxin, 1927, 72, 213
- and Witzemann, Edgar J. Potentiometric studies of the oxidation and reduction of epinephrine and related compounds, 1927, 74, xlix
- Kendall, F. E.** See MITCHELL, NEVENS, and KENDALL, 1922, 52, 417
- Kennard, D. C.** See BETHKE, KENNARD, and KIK, 1925, 63, 377
- See BETHKE, KENNARD, and SASSAMAN, 1927, 72, 695
- Kennedy, Cornelia, and Palmer, Leroy S.** Yeast as a source of vitamin B. for the growth of rats, 1922, 54, 217
- See PALMER and KENNEDY, 1927, 74, 591
1927, 75, 619
- Kennedy, R. P.** The quantitative determination of iron in tissues, 1927, 74, 385
- Kern, Ruth.** See WANG, KERN, FRANK, and DUNWIDDIE, 1925, 63, lxi
- Kerr, Ralph W. E.** See NELSON and KERR, 1924, 59, 495
- Kerr, Robert H.** See HOLMES and KERR, 1923-24, 58, 377
- Kerr, Stanley, E.** Studies on the inorganic composition of blood. I. The effect of hemorrhage on the inorganic composition of serum and corpuscles, 1926, 67, 689
- II. Changes in the potassium content of erythrocytes under certain experimental conditions, 1926, 67, 721
- Kiech, Veon C.** See BODANSKY, MORSE, KIECH, and BRAMKAMP, 1927, 74, 463
- Kik, M. C.** See BETHKE, KENNARD, and KIK, 1925, 63, 377
- Killian, John A.** See MOSENTHAL and KILLIAN, 1923, 55, xliii
- See KATAYAMA and KILLIAN, 1926-27, 71, 707
- Kimball, C. P., and Murlin, John R.** Aqueous extracts of pancreas. III. Some precipitation reactions of insulin, 1923-24, 58, 337

- ing, J. F., and Howard, Frederick H.** The electrometric determination of iron in blood, 1927, 75, 27
- Jingsbury, Francis B.** The benzoate test for renal function, 1923, 55, xxi
- The variations in the sugar content of human urine, 1926, 67, xviii
- Note on the effect of glucose on the condensation of formaldehyde. I. The determination of urinary sugar by this principle, 1927, 75, 241
- Kinney, Ethel May.** See SHIPLEY, KINNEY, and MCCOLLUM, 1924, 59, 165, 177
- Kirkpatrick, Elizabeth E.** See BOGERT and KIRKPATRICK, 1922, 54, 375
- Kleinschmidt, R. E.** See CHAMBERS and KLEINSCHMIDT, 1923, 55, 257
- Kletzien, S. W. F.** See HART, STEENBOCK, LEPKOVSKY, KLETZIEN, HALPIN, and JOHNSON, 1925, 65, 579
- See STEENBOCK, HART, ELVEHJEM, and KLETZIEN, 1925, 66, 425
- See HART, STEENBOCK, KLETZIEN, and SCOTT, 1926-27, 71, 271
- Knight, Harry H.** See PALMER and KNIGHT, 1924, 59, 443, 451
- Knudson, Arthur.** See RANGLES and KNUDSON, 1922, 53, 53
- and Randles, F. S. Studies on cholesterol. II. Influence of cholesterol on nutrition and growth, 1925, 63, xxxi
- See RANGLES and KNUDSON, 1925, 66, 459
1926, 67, xvii
- Kober, Philip Adolph.** The chemical and biological properties of pure arsphenamines, 1925, 63, lviii
- Koch, Elizabeth M., Cahan, Meyer H., and Gustavson, Reuben G.** The antirachitic properties of certain lipoids, 1926, 67, lii
- Koch, Fred C.** See PARSONS and KOCH, 1924, 59, xxxviii
- See McMECKIN and KOCH, 1926, 67, xiii
- Koechig, Irene.** See BRIGGS, KOECHIG, DOISY, and WEBER, 1923-24, 58, 721
- See RONZONI, KOECHIG, and EATON, 1924, 61, 465
- See DOISY, BRIGGS, WEBER, and KOECHIG, 1925, 63, xlviii
- Koehler, Alfred E.** Hydrogen ion changes accompanying death, 1923, 55, viii
- , Brunquist, E. H., and Loevenhart, A. S. The production of acidosis by anoxemia, 1923, 55, ix
- See LEAKE, LEAKE, and KOEHLER, 1923, 56, 319
- See SEVRINGHAUS, KOEHLER, and BRADLEY, 1923, 57, 163
- The rates of reduction and oxidation of blood, 1923-24, 58, 813
- Uric acid excretion, 1924, 60, 721
- The acidosis of operative anesthesia, 1924-25, 62, 435

- An apparatus for measuring the oxygen consumption of tissues, 1925, 63, 475
- , Brunquist, E. H., and Loevenhart, A. S. The production of acidosis by anoxemia, 1925, 64, 313
- and Reitzel, Raymond J. The effect of pH on the oxygen consumption of tissues, 1925, 64, 739
- The effect of acidosis on the sugar metabolism, 1926, 67, xlv
- The effect of acid and base ingestion upon the acid-base balance, 1927, 72, 99
- Koessler, Karl K., and Hanke, Milton T. The production and presence of poisonous amines in the mammalian organism, 1924, 59, iii
- and —. Studies on proteinogenous amines. XVI. The excretion of imidazoles in the urine under normal and pathological conditions with special consideration of nephritis, 1924, 59, 803
- and —. XXI. The intestinal absorption and detoxication of histamine in the mammalian organism, 1924, 59, 889
- See HANKE and KOESSLER, 1924, 59, 835, 855, 867, 879
1925, 66, 495
- Kolthoff, I. M. A new set of buffer mixtures that can be prepared without the use of standardized acid or base, 1925, 63, 135
- Kornblum, K. See CULLEN, AUSTIN, KORNBLUM, and ROBINSON, 1923, 56, 625
- Kramer, Benjamin, and Tisdall, Frederick F. The distribution of sodium, potassium, calcium, and magnesium between the corpuscles and serum of human blood, 1922, 53, 241
- See PINCUS and KRAMER, 1923, 57, 463
- and Gittleman, I. F. A volumetric method for the quantitative determination of sodium in small amounts of serum, 1924, 59, xlv
- and —. An iodometric method for the determination of sodium in small amounts of serum, 1924-25, 62, 353
- and Howland, John. The quantitative estimation of calcium, magnesium, phosphate, and carbonate in bone, 1926, 68, 711
- See HOWLAND, MARIOTT, and KRAMER, 1926, 68, 721
- See PINCUS, PETERSON, and KRAMER, 1926, 68, 601
- , Kramer, Sidney D., Shelling, David H., and Shear, M. J. Cod liver oil concentrate. Its value as an antirachitic agent when injected subcutaneously, 1926-27, 71, 699
- , Shear, M. J., and Shelling, David H. Fractionation of irradiated cholesterol. II. Antirachitic potency of the fractions, 1926-27, 71, 221
- See SHEAR and KRAMER, 1926-27, 71, 213
1927, 74, ix

- Kramer, Sidney D.** See KRAMER, KRAMER, SHELLING, and SHEAR, 1926-27, 71, 699
- Kraus, Ida.** Colorimetric determination of tryptophane by the vanillin-hydrochloric acid reaction and the quantitative separation from indole and skatole, 1925, 63, 157, lxx
- Kremers, Roland E.** The volatile oil of *Mentha aquatica* Linné, and a note on the occurrence of pulegone, 1922, 52, 439
- Krogh, August.** On the accuracy to be obtained by repetition of simple measurements, 1927, 74, 393
- Kruger, John Henry.** See DUTCHER and KRUGER, 1926, 69, 277
- See MITCHELL, BEADLES, and KRUGER, 1927, 73, 767
- Kruse, T. K.** Studies in narcosis. I. Ether analysis, 1923, 56, 127
- II. A method for the determination of the respiratory exchange during ether narcosis, 1923, 56, 139
- Kubie, Lawrence S.** The solubility of oxygen, carbon dioxide, and nitrogen in mineral oil, and the transfer of carbon dioxide from oil to air, 1927, 72, 545
- Kugelmass, I. Newton, and Rothwell, Carmen.** The direct determination of the secondary phosphate, 1923-24, 58, 643
- and Shohl, Alfred T. The determination of the equilibrium involving calcium, hydrogen, carbonate, bicarbonate, and primary, secondary, and tertiary phosphate ions, 1923-24, 58, 649
- The buffer mechanism for the calcium concentration and the determination of calcium buffer values, 1924, 60, 237
- Kulp, W. L.** See ANDERSON and KULP, 1922, 52, 69
- Kurland, Sarah.** See BAUMANN and KURLAND, 1926-27, 71, 281
- Kuttner, Theodore, and Cohen, Harriet R.** Micro colorimetric studies. I. A molybdic acid, stannous chloride reagent. The micro estimation of phosphate and calcium in pus, plasma, and spinal fluid, 1927, 75, 517
- Ladd, William S.** See BIGWOOD and LADD, 1923-24, 58, 347
- See RICHARDSON and LADD, 1923-24, 58, 931
- and Richardson, Henry B. Clinical calorimetry. XXXVIII. The utilization of carbohydrate in a case of renal glycosuria, 1925, 63, 681
- La Mer, Victor K., and Parsons, T. R.** The application of the quinhydrone electrode to electrometric acid-base titrations in the presence of air, and the factors limiting its use in alkaline solution, 1923, 57, 613

- See HOLT, LA MER, and CHOWN,
1925, 64, 509, 567
- Lamson, Paul D., and Wing, Raymond. The effect of carbon tetrachloride and alcohol on the acid-base balance of the blood, 1926, 69, 349
- Landsteiner, K. See LEVENE and LANDSTEINER,
1927, 75, 607
- Langworthy, C. F., and Deuel, Harry J., Jr. Digestibility of raw rice, arrowroot, canna, cassava, taro, tree-fern, and potato starches,
1922, 52, 251
- Larson, H. W. See NELSON and LARSON,
1927, 73, 223
- Larson, R. E. See HUFFMAN and ROBINSON,
1926, 69, 101
- Lasker, Margaret. See HARRIS, LASKER, and RINGER,
1926, 69, 713
- Latshaw, W. L. See HUGHES, LATSHAW, and SMITS,
1927, 74, xxx
- Laughton, N. B. See JAMES, LAUGHTON, and MACALLUM,
1926, 67, vi
- Lawrence, J. S. See BOCK, DILL, HURXTHAL, LAWRENCE, COOLIDGE, DAILEY, and HENDERSON,
1927, 73, 749
- See DILL, LAWRENCE, HURXTHAL, and BOCK,
1927, 74, 313
- Lawson, W. E., and Scott, W. O. An electrolytic modification of the Gutzzeit method for the determination of arsenic in body tissues,
1925, 64, 23
- See VEDDER and LAWSON,
1927, 73, 215
- Leake, Chauncey D., Leake, Elizabeth W., and Koehler, Alfred E. The acidosis of ether anesthesia in the dog,
1923, 56, 319
- Leake, Elizabeth W. See LEAKE, LEAKE, and KOEHLER,
1923, 56, 319
- Leavenworth, Charles S. See OSBORNE, WAKEMAN, and LEAVENWORTH,
1922, 53, 411
- , Wakeman, Alfred J., and Osborne, Thomas B. Some basic substances from the juice of the alfalfa plant,
1923-24, 58, 209
- Note on the basic amino acids yielded by casein,
1924, 61, 315
- See OSBORNE, LEAVENWORTH, and NOLAN,
1924, 61, 309
- See VICKERY and LEAVENWORTH,
1925, 63, 579
1926, 68, 225
1927, 72, 403
1927, 75, 115
- Leche, Stella. See DENIS and LECHE,
1925, 65, 561, 565
- Lee, Carter. See PETERS, BULGER, EISENMAN, and LEE,
1926, 67, 141, 175, 219
- Lee, M. O., and Brown, J. B. A note on the use of magnesium perchlorate trihydrate (dehydrite) and asbestos-sodium hydroxide (ascarite) in gravimetric metabolism determinations, for water and carbon dioxide absorption,
1927, 73, 69

- van Leersum, E. C.** On the effect of hematoporphyrin on the deposition of calcium in the bones of rachitic rats, 1923-24, 58, 835
- Leiboff, S. L.** A simplified method for cholesterol determination in blood, 1924, 61, 177
- Leighton, Alan, and Mudge, Courtland S.** On the endothermic reaction which accompanies the appearance of a visible curd in milks coagulated by heat: A contribution to the theory of the heat coagulation of milk, 1923, 56, 53
- Leiter, Louis.** The metabolism of imidazoles, 1925, 64, 125
- Lennox, William G.** A study of the retention of uric acid during fasting, 1925, 66, 521
- Stimulation of the sugar-regulating mechanism as shown by duplicate blood sugar curves, 1927, 73, 237
- Lenstrup, Ejnar.** The phosphorus content of human milk and cow's milk, 1926, 70, 193
- Lepkovsky, Samuel.** See **HART, STEENBOCK, and LEPKOVSKY,** 1922, 52, 241
- See **HART, STEENBOCK, LEPKOVSKY, and HALPIN,** 1923-24, 58, 33
- and **Nelson, Mariana T.** Observations on the persistence of vitamin C in the livers of rats on a scorbutic ration, 1924, 59, 91
- See **HART, STEENBOCK, LEPKOVSKY, and HALPIN,** 1924, 60, 341
- See **HART, STEENBOCK, and LEPKOVSKY,** 1925, 65, 571
- See **HART, STEENBOCK, LEPKOVSKY, KLETZIEN, HALPIN, and JOHNSON,** 1925, 65, 579
- , **Hart, E. B., Hastings, E. G., and Frazier, W. C.** The effect of fermentation with specific microorganisms on the vitamin C content of orange and tomato juice, 1925, 66, 49
- See **HART, STEENBOCK, LEPKOVSKY, and HALPIN,** 1925, 66, 813
- See **HALL, GRAY, and LEPKOVSKY,** 1926, 67, 549
- Levene, P. A., and Rolf, Ida P.** The unsaturated fatty acids of egg lecithin, 1922, 51, 507
- and **Simms, Henry S.** The unsaturated fatty acids of liver lecithin, 1922, 51, 285
- and **Mikeska, L. A.** On a possible asymmetry of aliphatic diazo compounds. II, 1922, 52, 485
- and **Taylor, F. A.** The synthesis of α -hydroxyisopentacosanic acid and its bearing on the structure of cerebronic acid, 1922, 52, 227
- **Benzylidene-ethyl-chitosaminat** and **benzylidene-ethyl-diazogluconate (mannonate),** 1922, 53, 449
- Preparation and analysis of animal nucleic acid, 1922, 53, 441

- and Meyer, G. M. Phosphoric esters of some substituted glucoses and their rate of hydrolysis, 1922, 53, 431
- and —. Sulfuric esters of some substituted glucoses and their rate of hydrolysis, 1922, 53, 437
- . Reduction of benzylidene-1-ethyl-2-diazogluconate, 1922, 54, 809
- and Meyer, G. M. On diacetone glucose, 1922, 54, 805
- and Mikeska, L. A. On a possible asymmetry of aliphatic diazo compounds. III, 1922, 54, 101
- and Rolf, Ida P. Unsaturated fatty acids of brain cephalins, 1922, 54, 91
- and —. Unsaturated fatty acids of brain lecithins, 1922, 54, 99
- and Taylor, F. A. On oxidation of tertiary hydrocarbons, 1922, 54, 351
- . The action of diazomethane on xanthosine, 1923, 55, 437
- . Hydrolysis of yeast nucleic acid with dilute alkali at room temperature. (Conditions of Steudel and Peiser), 1923, 55, 9
- and Meyer, G. M. Epi-glucosamine, 1923, 55, 221
- and Mikeska, L. A. On a possible asymmetry of aliphatic diazo compounds. IV, 1923, 55, 795
- and Rolf, Ida P. Lysolecithins and lysocephalins, 1923, 55, 743
- and Simms, Henry S. Calculation of isoelectric points, 1923, 55, 801
- On epichitosamine pentacetate, 1923, 57, 323
- Preparation of α -mannose, 1923, 57, 329
- The two isomeric chondrosamine hydrochlorides and the rates of their mutarotation, 1923, 57, 337
- and Meyer, G. M. On monoacetone benzylidene glucose, 1923, 57, 319
- and —. On the preparation of diacetone glucose, 1923, 57, 317
- and Muhlfeld, Marie. On the identity or non-identity of antineuritic and water-soluble B vitamins, 1923, 57, 341
- , Rolf, Ida P., and Simms, Henry S. Lysolecithins and lysocephalins. II. Isolation and properties of lysolecithins and lysocephalins, 1923-24, 58, 859
- Adenosin hexoside from yeast, 1924, 59, 465
- The optical behavior of 2,5-anhydroglucose, of 2,5-anhydrogluconic acid, and of 2,5-anhydromannonic acid, 1924, 59, 135
- The pentacetate of α -mannose, 1924, 59, 141
- Preparation of α -mannose. II, 1924, 59, 129
- The specific rotations of hexonic and 2-aminohexonic acids and of their sodium salts, 1924, 59, 123
- and Meyer, G. M. Isomeric methyl diacetone mannoses, 1924, 59, 145

- Levene, P. A.—*continued*.
- and Mikeska, L. A. On Walden inversion. I, 1924, 59, 473
 - and Taylor, F. A. The synthesis of normal fatty acids from stearic acid to hexacosanic acid, 1924, 59, 905
 - and Meyer, G. M. Structure of diacetone glucose. II. 3-methyl glucuronic acid and 4-methyl glucoheptonic lactone, 1924, 60, 173
 - and —. Two isomeric tetramethyl mannonolactones, 1924, 60, 167
 - and Mikeska, L. A. On Walden inversion. II. The optical rotation of thiolactic and corresponding α -sulfo-propionic acids, 1924, 60, 1
 - and —. III. Oxidation of optically active thiosuccinic acid and thiosuccinamide to the corresponding sulfo acids, 1924, 60, 685
 - and Rolf, Ida P. Synthetic lecithins, 1924, 60, 677
 - and Scheidegger, J. On the synthesis of hydroxy amines by the Curtius method, 1924, 60, 179
 - and Weber, Ione. On nucleosidases. II. Purification of the enzyme, 1924, 60, 707
 - and —. III. The degree of specificity of nucleosidase and the distribution of it in various organs and in various species, 1924, 60, 717
 - , Yamagawa, M., and Weber, Ione. On nucleosidases. I. General properties, 1924, 60, 693
 - and van der Hoeven, B. J. C. The concentration of vitamin B, 1924, 61, 429
 - , Simms, Henry S., and Pfaltz, Mimosa H. The relation of chemical structure to the rate of hydrolysis of peptides. I. On the synthesis, on the physical constants, and on the rates of hydrolysis of methylated peptides, 1924, 61, 445
 - , Taylor, F. A., and Haller, H. L. On lignoceric acid, 1924, 61, 157
 - and Rolf, Ida P. Plant phosphatides. I. Lecithin and cephalin of the soy bean, 1924-25, 62, 759
 - and Simms, Henry S. The relation of chemical structure to the rate of hydrolysis of peptides. II. Hydrolysis with enzyme (erepsin), 1924-25, 62, 711
 - . The configuration of 2-amino-hexonic acids and of 2-amino-hexoses, 1925, 63, 95
 - . Phenylhydrazino derivatives of pyrimidines, 1925, 63, 653
 - and Haller, H. L. On sphingosine. V. The synthesis of 1-amino-2-hydroxy-*n*-heptadecane, 1925, 63, 669
 - and Mikeska, L. A. Oxidation of *d*-2-mercaptobutane to *d*-butane-2-sulfonic acid, and the rotations of the salts and free acids of the thio- and sulfocarboxylic acids, 1925, 63, 85
 - and Pfaltz, Mimosa H. Studies on racemization. Action of alkali on dextro-

- alanyl-dextro-alanine anhydride, 1925, 63, 661
- and Simms, Henry S. The stereochemistry of 2, 5-anhydrotetroxyadipic acids, 1925, 63, 351
- and Meyer, G. M. Monoacetone galactose, 1925, 64, 473
- and Ulpts, R. On condensation of monosaccharides by means of dilute mineral acid, 1925, 64, 475
- . The mucoproteins of the snails, *Helix aspersa* and *Helix pomatia*, 1925, 65, 683
- and Haller, H. L. The configurational relationships between β -hydroxy acids and α -hydroxy acids and between the latter and secondary alcohols, 1925, 65, 49
- and van der Hoeven, B. J. C. The concentration of vitamin B. II, 1925, 65, 483
- and Meyer, G. M. The numerical values of the optical rotation of methylated gluconic acids and of their salts, 1925, 65, 535
- and Mikeska, L. A. On the oxidation of secondary mercaptans into corresponding sulfonic acids, 1925, 65, 515
- and —. Substitution by halogen of the hydroxyl in secondary alcohols, 1925, 65, 507
- and Rolf, Ida P. Bromolecithins. I. Fractionation of brominated soy bean lecithins, 1925, 65, 545
- and Simms, Henry S. The dissociation constants of plant nucleotides and nucleosides and their relation to nucleic acid structure, 1925, 65, 519
- and —. Lactone formation from mono- and dicarboxylic sugar acids, 1925, 65, 31
- and Sobotka, Harry. Synthetic nucleosides. I. Theophylline pentosides, 1925, 65, 463
- and —. II. Substituted uracil xylosides, 1925, 65, 469
- and —. The thio-sugar from yeast, 1925, 65, 551
- . On the nitrogenous components of yeast nucleic acid, 1926, 67, 325
- and Haller, H. L. The conversion of optically active lactic acid to the corresponding propylene glycol, 1926, 67, 329
- and Rolf, Ida P. Bromolecithins. II. Bromolecithins of the liver and egg yolk, 1926, 67, 659
- and Sobotka, Harry. Acetyl monoses. I, 1926, 67, 759
- and —. II, 1926, 67, 771
- and Pfaltz, Mimosa H. Studies on racemization. III. Action of alkali on glycyl-levoalanyl-glycine and on glycyl-glycyl-levoalanyl-glycine, 1926, 68, 277
- and Rolf, Ida P. Plant phosphatides. II. Lecithin, cephalin, and so called cuorin of the soy bean, 1926, 68, 285
- and Simms, Henry S. Lactone formation from gluconic acids and the structure of glucose, 1926, 68, 737

Levene, P. A.—*continued.*

— and Walti, A. On the configurational relationship of β -hydroxybutyric acid and propylene glycol,

1926, 68, 415

— and Haller, H. L. The configurational relationships of 2-hydroxy, 3-hydroxy, and 4-hydroxy acids. I,

1926, 69, 165

— and —. II. Conversion of dextro-1-amino-3-hydroxy butane into dextro-1, 3-dihydroxy butane,

1926, 69, 569

— and Meyer, G. M. Pentamethyl glucose and its dimethyl acetal,

1926, 69, 175

— and Bass, Lawrence W. The configurational relationships of dialkylacetic acids,

1926, 70, 211

—, —, and Simms, Henry S. The ionization of pyrimidines in relation to the structure of pyrimidine nucleosides,

1926, 70, 229

— and Meyer, G. M. Diacetone glucose. III. Methylated methyl glucosides prepared from monoacetone glucose,

1926, 70, 343

— and Mikeska, L. A. On the oxidation of mercaptans and thio acids to the corresponding sulfonic acids,

1926, 70, 365

— and —. Substitution by halogen of the hydroxyl in secondary alcohols,

1926, 70, 355

— and Pfaltz, Mimosa H. Studies on racemization. IV. Action of alkali on ketopiperazines and on peptides,

1926, 70, 219

— and Simms, Henry S. Nucleic acid structure as determined by electrometric titration data,

1926, 70, 327

—, —, and Bass, Lawrence W. The effect of ionization upon optical rotation of nucleic acid derivatives,

1926, 70, 243

—, —, and Pfaltz, Mimosa H. The relation of chemical structure to the rate of hydrolysis of peptides. III. Enzyme hydrolysis of dipeptides and tripeptides,

1926, 70, 253

— See SIMMS and LEVENE,

1926, 70, 319

— and Bass, Lawrence W. The action of hydrazine hydrate on uridine,

1926-27, 71, 167

— and Sobotka, Harry. Deamination of 3-aminohexoses,

1926-27, 71, 181

— and —. Lactone formation of lacto- and maltobionic acids and its bearing on the structure of lactose and maltose,

1926-27, 71, 471

— and Walti, A. Note on the action of ammonia on propylene oxide,

1926-27, 71, 461

—, —, and Haller, H. L. The configurational relationship of dextro-methylethyl carbinol to dextro-lactic acid,

1926-27, 71, 465

—, Bass, Lawrence W., Steiger, Robert E., and Bencowitz, Isaac. The effect of ionization upon optical rotation. II. Relations in the series of amino acids, polypeptides,

- and ketopiperazines,
1927, 72, 815
- and Bencowitz, Isaac. Acetyl monoses. III. On α -mannose pentacetate,
1927, 72, 627
- , Haller, H. L., and Walti, A. Configurational relationships of methylethyl and methylpropyl carbinols,
1927, 72, 591
- and Rolf, Ida P. The preparation and purification of lecithin,
1927, 72, 587
- and Bencowitz, Isaac. The influence of solvent and of concentration on the optical rotation of the pentacetates of glucose and mannose,
1927, 73, 679
- and Walti, A. On Walden inversion. IX. On the mechanism of hydrolysis of optically active propylene oxide,
1927, 73, 263
- and Bass, Lawrence W. The effect of ionization upon optical rotation. III. Relations in the 2, 5-anhydro sugar acids,
1927, 74, 727
- and —. Studies on racemization. V. The action of alkali on gelatin,
1927, 74, 715
- and Bencowitz, Isaac. The rotatory dispersion of the pentacetates of α - and β -glucose and of α - and β -mannose,
1927, 74, 153
- and Haller, H. L. Configurational relationships of 2-hydroxybutyric and lactic acids,
1927, 74, 343
- and Meyer, G. M. Diacetone glucose. IV. α - and β -isomers of 3,5,6-trimethylmethylglucoside and of 2, 3, 5,6-tetramethylmethylglucoside,
1927, 74, 701
- and —. Pentamethyl *d*-mannose and pentamethyl *d*-galactose and their dimethyl acetals,
1927, 74, 695
- and Rolf, Ida P. Note on the preparation of cephalin,
1927, 74, 713
- and Steiger, Robert E. The action on tyrosine and on phenylaminoacetic acid of acetic anhydride and acetone in the presence of pyridine,
1927, 74, 689
- and Landsteiner, K. On some new lipoids,
1927, 75, 607
- and Mikeska, L. A. On Walden inversion. XI. On the oxidation of secondary mercaptans to corresponding sulfonic acids and on the Walden inversion in the series of secondary carbinols,
1927, 75, 587
- , Mori, T., and Mikeska, L. A. On Walden inversion. X. On the oxidation of 2-thiolcarboxylic acids to the corresponding sulfonic acids and on the Walden inversion in the series of 2-hydroxycarboxylic acids,
1927, 75, 337
- and Walti, A. On condensation products of propylene oxide and of glycidol,
1927, 75, 325
- and Wintersteiner, Oskar. Lactone formation of galactoarabonic and of melibionic acids and its bearing on the structures of lactose and of melibiose,
1927, 75, 315

- Levin, Thelma J. Porter. See OKEY, 1925, 63, xxxiii
- Levine, Harold. See SMITH and LEVINE, 1926, 67, vi
- and Smith, Arthur H. Growth experiments on diets rich in fat, 1927, 72, 223
- and —. Studies on ketosis in the rat, 1927, 75, 1
- Levine, Samuel Z. See RICHARDSON and LEVINE, 1925, 63, 465
1925, 66, 161
- See RICHARDSON, LEVINE, and DU BOIS, 1926, 67, 737
- Levine, Victor E., McCollum, E. V., and Simmonds, Nina. Glacial acetic acid as a solvent for the antineuritic substance, water-soluble B, 1922, 53, 7
- See BARRY and LEVINE, 1923, 55, xxxvii
- and Sohm, Herbert A. The effect of manganese on growth, 1924, 59, xlviii
- See BARRY and LEVINE, 1924, 59, lii
- See LITTLE, LEVINE, and BEST, 1924, 59, xxxvii
- A critical study of the Jendrassik reaction for water-soluble B, 1924-25, 62, 157
- The Jendrassik reaction for vitamin B with reference to the work of Bezssonoff and of Levine, 1925, 64, 591
- Lewis, George T., and Lewis, Howard B. The metabolism of sulfur. XI. Can taurine replace cystine in the diet of the young white rat? 1926, 69, 589
- and —. XII. The value of diglycyl-cystine, dialanyl-cystine, and dialanyl-cystine dianhydride for the nutritive requirements of the white rat, 1927, 73, 535
- and —. XIII. The effect of elementary sulfur on the growth of the young white rat, 1927, 74, 515
- Lewis, Howard B., and McGinty, Daniel A. The metabolism of sulfur. V. Cysteine as an intermediary product in the metabolism of cystine, 1922, 53, 349
- and Corley, Ralph C. Studies in uric acid metabolism. III. The influence of fats and carbohydrates on the endogenous uric acid elimination, 1923, 55, 373
- and Griffith, Wendell H. The synthesis and rate of elimination of hippuric acid in the organism of the rabbit, 1923, 55, xxii
- and Updegraff, Helen. The reaction between proteins and nitrous acid. The tyrosine content of deaminized casein, 1923, 56, 405
- See HYDE and LEWIS, 1923, 56, 7
- See CHRISTMAN and LEWIS, 1923, 57, 379
- See GRIFFITH and LEWIS, 1923, 57, 1, 697
- , McGinty, Daniel A., and Marvel, Carl S. The availability of some possible precursors of lysine for lysine synthesis, 1924, 59, xiii
- , Updegraff, Helen, and McGinty, Daniel A. The metabolism of sulfur. VI. The oxidation of cystine in

- the animal organism. II,
1924, 59, 59
- See HILL and LEWIS,
1924, 59, 557, 569
- See UPDEGRAFF and LEWIS,
1924, 61, 633
- See MCGINTY, LEWIS,
and MARVEL,
1924-25, 62, 75
- The effect of repeated ad-
ministration of small amounts
of cystine on the rabbit,
1925, 63, xx
- The metabolism of sulfur.
IX. The effect of repeated
administration of small
amounts of cystine,
1925, 65, 187
- See MCGINTY and LEWIS,
1926, 67, 567
- See SHAMBAUGH and
LEWIS, 1926, 67, xxx
- and WILSON, Robert H.
The metabolism of sulfur.
X. The determination of
cystine in the urine,
1926, 69, 125
- See LEWIS and LEWIS,
1926, 69, 589
- and Izume, Seiichi. The
influence of hydrazine and its
derivatives on metabolism.
II. Changes in the non-
protein nitrogenous constitu-
ents of the blood and in the
metabolism of injected gly-
cine in hydrazine intoxication,
1926-27, 71, 33
- See IZUME and LEWIS,
1926-27, 71, 51
- See LEWIS and LEWIS,
1927, 73, 535
- See WILSON and LEWIS,
1927, 73, 543
- See LEWIS and LEWIS,
1927, 74, 515
- See BODEY, LEWIS, and
HUBER, 1927, 75, 715
- Lewis, Julian H. See WELLS
and LEWIS, 1924, 59, iii
- and Wells, H. Gideon. The
immunological properties of
alcohol-soluble vegetable
proteins. IX. The biologi-
cal reactions of the vegetable
proteins, 1925, 66, 37
- Alcaptonuria in a rabbit,
1926, 70, 659
- Lewman, Gertrude. See
GREENWALD and LEWMAN,
1922, 54, 263
- Light, Arthur B. See GOLD-
SCHMIDT and LIGHT,
1925, 63, xxxviii
- 1925, 64, 53
- Liljestrand, S. H., and Wilson,
D. Wright. The excretion of
lactic acid in the urine after
muscular exercise,
1925, 65, 773
- Linder, Geoffry C. See SAL-
VESEN and LINDER,
1923-24, 58, 617, 635
- See HILLER, LINDER, and
VAN SLYKE,
1925, 64, 625
- Lindow, C. W., and Peterson,
W. H. The manganese con-
tent of plant and animal
materials, 1927, 75, 169
- Ling, Shmorl M. See WIER-
ZUCHOWSKI and LING,
1925, 64, 697
- The determination of
protein in spinal fluid, with a
note on the increase in pro-
tein in the spinal fluid in
typhus fever,
1926, 69, 397
- Litarczek, Georges. See FISKE
and LITARCZEK,
1926, 67, xvi

- Little, John T., Levine, Victor E., and Best, Charles H. The occurrence of a hypoglycemia-producing substance in bacteria, 1924, 59, xxxvii
- Livshis, Laura. See WITZEMANN and LIVSHIS, 1923, 57, 425
1923-24, 58, 463
- Lloyd, John Uri. See SANDO and LLOYD, 1923-24, 58, 737
- Locke, Arthur P. See MAIN and LOCKE, 1925, 64, 75
- Loeb, Leo, Fleisher, Moyer S., and Tuttle, Lucius. The interaction between blood serum and tissue extract in the coagulation of the blood. I. The combined action of serum and tissue extract on fluoride, hirudin, and peptone plasma; the effect of heating on the serum, 1922, 51, 461
- , —, and —. II. A comparison between the effects of the stroma of erythrocytes and of tissue extracts, unheated and heated, on the coagulation of the blood, and on the mechanism of the interaction of these substances with blood serum, 1922, 51, 485
- and Bodansky, Oscar. The occurrence of urease in the blood cells, blood plasma, and tissues of *Limulus*, 1926, 67, 79
- and —. The specific effect of salts in the extraction of urease from the amebocytes of *Limulus*, 1927, 72, 415
- Loeb, Robert F., Atchley, Dana W., and Benedict, Ethel M. Observations on the origin of urinary ammonia, 1924, 60, 491
- and Nichols, Emily G. Factors influencing the diffusibility of calcium in human blood serum, 1927, 72, 687
- and —. Effects of dialysis and of ether extraction on the diffusibility of calcium in human blood serum, 1927, 74, 645
- Loebel, Robert O. See HIMWICH, LOEBEL, and BARR, 1924, 59, 265
- , Barr, David P., Tolstoi, Edward, and Himwich, Harold E. Studies of the effect of exercise in diabetes. II. Lactic acid formation in phlorhizin diabetes, 1924, 61, 9
- Loevenhart, A. S. See KOEHLER, BRUNQUIST, and LOEVENHART, 1923, 55, ix
- See SCHNELLER, BRUNQUIST, and LOEVENHART, 1923, 55, iii
- See BRUNQUIST, SCHNELLER, and LOEVENHART, 1924-25, 62, 93
- See KOEHLER, BRUNQUIST, and LOEVENHART, 1925, 64, 313
- Logan, J. F. The protein matter of bile, 1923-24, 58, 17
- Long, Esmond R. See SEIBERT and LONG, 1925, 64, 229
- Long, M. Louisa. See BLATHERWICK and LONG, 1922, 52, 125
1922, 53, 103
1923, 57, 815

- . See BLATHERWICK, LONG, BELL, MAXWELL, and HILL, 1924, 59, xxxvi
- . See BLATHERWICK, BELL, HILL, and LONG, 1925, 66, 801
- . See MACY, outhouse, LONG, and HOOBLE, 1926, 67, li
- . See MACY, outhouse, GRAHAM, and LONG, 1927, 73, 175, 189
- . See MACY, outhouse, LONG, and GRAHAM, 1927, 73, 153
- . See MACY, outhouse, LONG, BROWN; HUNSCHER, and HOOBLE, 1927, 74, xxxi
- Long, W. L. See WILSON, LONG, THOMPSON, and THURLOW, 1925, 65, 755
- Looney, Joseph M. See FOLIN and LOONEY, 1922, 51, 421
- . The colorimetric estimation of cystine in urine, 1922, 54, 171
- , Berglund, Hilding, and Graves, Roger C. A study of several cases of cystinuria, 1923, 57, 515
- and Macht, David I. The relation between the undetermined nitrogen of the blood and its toxicity to *Lupinus albus* seedlings, 1925, 63, ix
- . The control of the muscular rigidity of catatonic præcox patients by parathyroid hormone, 1926, 67, xxxvii
- . The colorimetric estimation of tyrosine, tryptophane, and cystine in proteins. II, 1926, 69, 519
- . Blood changes in acute mercuric chloride poisoning, 1926, 70, 513
- . The preparation and use of colloidal carbon solutions, 1927, 74, lxi
- Lorberblatt, I. See NOYES, LORBERBLATT, and FALK, 1926, 68, 135
- Loucks, Milo M. See McCLENDON, HUMPHREY, and LOUCKS, 1926, 69, 513
- Lucas, G. H. W., Brown, W. Eason, and Henderson, V. E. Bromine excretion following bromoform anesthesia, 1927, 74, lxxix
- Luce, Ethel M. Glass screens for the transmission of the light radiations curative of rickets, 1926-27, 71, 187
- Lundsgaard, Christen, and Möller, Eggert. On the determination of the total oxygen-combining power of the blood in the Van Slyke apparatus, 1922, 52, 377
- and — . Investigations on the immediate effect of heavy exercise (stair-running) on some phases of circulation and respiration in normal individuals. I. Oxygen and carbon dioxide content of blood drawn from the cubital vein before and after exercise, 1923, 55, 315
- and — . II. Oxygen and carbon dioxide content of blood drawn from a cubital vein at different intervals after exercise, 1923, 55, 477
- and — . III. Effect of varying the amount and kind of exercise, 1923, 55, 599

Lundsgaard, Christen.—*continued*.

— and Holbøll, Svend Aage. Effect of insulin and muscle tissue on glucose *in vitro*,

1924-25, 62, 453

— and —. Studies in carbohydrate metabolism. II. Investigations into the mutarotation of β -glucose under various conditions,

1925, 65, 305

— and —. III. Investigations into the nature of the glucose in the blood of normal individuals,

1925, 65, 323

— and —. IV. Investigations into the nature of the glucose in the blood of patients with diabetes mellitus and of patients with benign glycosuria,

1925, 65, 343

— and —. V. Investigations into the form of glucose in different body fluids,

1925, 65, 363

— and —. Investigations into the standardization and calibration of collodion membranes. I,

1926, 68, 439

— and —. Studies in carbohydrate metabolism. VI. Technique applied in determining the presence of new-glucose in various biological fluids,

1926, 68, 457

— and —. VII. Investigations into the transformation of the liver glycogen into glucose *in vitro*,

1926, 68, 475

— and —. VIII. Investigations into the action of liver tissue and insulin on glucose *in vitro*,

1926, 68, 485

— and —. IX. Continued in-

vestigations into the influence of insulin and muscle tissue on glucose *in vitro*,

1926, 70, 71

—, —, and Gottschalk, Alfred. Studies in carbohydrate metabolism. X. Investigations into the occurrence of insulin complement in the muscles of warm blooded and cold blooded animals,

1926, 70, 79

—, —, and —. XI. Investigations into the occurrence of new-glucose in the course of the fermentation of α,β -glucose,

1926, 70, 83

—, —, and —. XII. Investigations into the properties of insulin complement,

1926, 70, 89

Lusk, Graham. See ATKINSON, RAPPORT, and LUSK,

1922, 53, 155

—. Animal calorimetry.

XXIV. Analysis of the oxidation of mixtures of carbohydrate and fat. A correction,

1924, 59, 41

—. See PLUMMER, DEUEL, and LUSK,

1926, 69, 339

Lyttle, John D., and Hearn, John E. A comparison of the Folin-Wu and the new Benedict method for sugar in blood and cerebrospinal fluid,

1926, 68, 751

M

Macallum, A. B. On the absorption of organic colloids by the intestinal mucosa,

1924, 59, xvii

Macallum, A. Bruce. See JAMES, LAUGHTON, and MACALLUM,

1926, 67, vi

- MacArthur, E. H.** See **SHERMAN** and **MACARTHUR**,
1927, 74, 107
- MacDonald, Margaret B.** The synthesis of water-soluble B by yeast grown in solutions of purified nutrients,
1922, 54, 243
- The synthesis of "bios" by yeast grown in a solution of purified nutrients,
1923, 56, 489
- Macht, David I.** See **LOONEY** and **MACHT**,
1925, 63, lx
- MacKay, Eaton M.** See **ADDIS**, **MACKAY**, and **MACKAY**,
1926-27, 71, 139, 157
- MacKay, Lois Lockard.** See **ADDIS**, **MACKAY**, and **MACKAY**,
1926-27, 71, 139, 157
- MacLeod, F. L.** See **SHERMAN** and **MACLEOD**,
1924, 59, xlv
1925, 63, xxx
1925, 64, 429
- MacLeod, Grace.** See **ROSE** and **MACLEOD**,
1923, 55, xxiv
1923, 57, 305
1923-24, 58, 369
1925, 66, 847
- and **Rose, Mary Swartz.** Some factors influencing the basal metabolism of children,
1926, 67, xix
- Macleod, J. J. R.** See **BEST** and **MACLEOD**,
1923, 55, xxix
- See **CHAIKOFF**, **MACLEOD**, and **MARKOWITZ**,
1925, 63, lxxi
- See **CHAIKOFF** and **MACLEOD**,
1927, 73, 725
- Macy, Icie G., Outhouse, Julia, Long, M. Louisa, and Hoo- bler, B. Raymond.** A study of the vitamin A and B content of mixed human milk,
1926, 67, li
- , —, **Graham, Alice,** and **Long, M. Louisa.** Human milk studies. II. The quantitative estimation of vitamin A,
1927, 73, 175
- , —, —, and —. III. The quantitative estimation of vitamin B,
1927, 73, 189
- , —, **Long, M. Louisa,** and **Graham, Alice.** Human milk studies. I. Technique employed in vitamin studies,
1927, 73, 153
- See **OUTHOUSE**, **MACY**, **BREKKE**, and **GRAHAM**,
1927, 73, 203
- , **Outhouse, Julia, Long, M. Louisa, Brown, Minerva, Hunscher, Helen, and Hoo- bler, B. Raymond.** Observations upon the composition of blood and milk of women during the different stages of lactation,
1927, 74, xxxi
- Magers, Elizabeth J.,** and **Gibson, R. B.** The relation between optical activity and the reducing power of glucose excreted by renal diabetics,
1927, 75, 299
- Mahler, Abraham.** Blood cholesterol during ether anesthesia,
1926, 69, 653
- Main, Edna Ruth, and Locke, Arthur P.** The determination of small amounts of protein nitrogen,
1925, 64, 75
- Mallon, Marguerite G., and Clark, Marjorie.** Vitamin A content of lard obtained from hogs on a control ration,
1922, 54, 763

- Mandel, J. A.** See DEUEL, WADDELL, and MANDEL, 1926, 68, 801
- Mann, William A.** See CLARK and MANN, 1922, 52, 157
- Manning, Helen M.** See MENTEN and MANNING, 1927, 72, 255
- Markowitz, J.** See CHAIKOFF, MACLEOD, and MARKOWITZ, 1925, 63, lxxi
- See CAMPBELL, FLETCHER, HEPBURN, and MARKOWITZ, 1926, 67, lvii
- Marriott, W. McKim.** See HOWLAND, MARRIOTT, and KRAMER, 1926, 68, 721
- Marsh, Marion.** See DRINKER, FEHNEL, and MARSH, 1927, 72, 375
- Marshall, E. K., Jr.** The effect of loss of carbon dioxide on the hydrogen ion concentration of urine, 1922, 51, 3
- See NEUHAUSEN and MARSHALL, 1922, 53, 365
- Marten, E. A.** See PETERSON, FRED, and MARTEN, 1926, 70, 309
- Martin, J. H.** See BUCKNER, MARTIN, PIERCE, and PETER, 1922, 51, 51
- Martin, Kirby A.** See STADIE and MARTIN, 1924, 60, 191
- Marvel, Carl S.** See LEWIS, MCGINTY, and MARVEL, 1924, 59, xiii
- See MCGINTY, LEWIS, and MARVEL, 1924-25, 62, 75
- Maslow, Herman L., and Davison, Wilburt C.** A comparison of the viscometric, copper reduction, polariscopic, and iodometric methods for measuring the rate of hydrolysis of starch and dextrin by *Aspergillus oryzae*, 1926, 68, 75
- and —. The effect of the hydrogen ion concentration upon the dextrin-liquefying activity of the dextrinase of *Aspergillus oryzae*, 1926, 68, 95
- and —. The effect of the hydrogen ion concentration upon the starch-liquefying activity of the amylase of *Aspergillus oryzae*, 1926, 68, 83
- Mason, Edward H.** See RICHARDSON and MASON, 1923, 57, 587
- Massengale, O. M.** See RUSSELL and MASSENGALE, 1927, 74, lxxvi
- Matsuda, Yoshimi.** A biochemical study of tooth growth, 1926-27, 71, 437
- Matthew, C. W.** The plasma proteins of normal dogs, 1927, 74, 557
- Mattill, H. A.** The utilization of carbohydrate by rats deprived of vitamin B, 1923, 55, 717
- The utilization of sugar by rats deprived of vitamin B, 1923, 55, xxv
- and Stone, Neil C. The nutritive properties of milk with special reference to reproduction in the albino rat. II, 1923, 55, 443
- and Congdon, C. C. The influence of yeast product additions to milk rations on the infertility of rats, 1924, 59, xii

- , Carman, J. S., and Clayton, Mary M. The nutritive properties of milk. III. The effectiveness of the X substance in preventing sterility in rats on milk rations high in fat, 1924, 61, 729
- and Clayton, Mary M. The influence of milk rations high and low in fats on the sex glands of male albino rats, with special reference to substance X, 1925, 63, xxvii
- and —. Further observations on the relation of vitamin E to reproduction in rats on synthetic and milk diets, 1926, 67, xlix
- and —. Vitamin E and reproduction on synthetic and milk diets, 1926, 68, 665
- Maxwell, L. C. See BLATHERWICK, LONG, BELL, MAXWELL, and HILL, 1924, 59, xxxvi
- See BISCHOFF, MAXWELL, and BLATHERWICK, 1926, 67, 547
- See BLATHERWICK, MAXWELL, BERGER, and SAHYUN, 1926, 67, xxxiii
- , Bischoff, Fritz, and Blatherwick, N. R. Micro methods for the determination of labile and total sulfur in proteins, 1927, 72, 51
- See BLATHERWICK, BISCHOFF, MAXWELL, BERGER, and SAHYUN, 1927, 72, 57
- May, Clarence E., and Rose, Embree R. The tryptophane content of some proteins, 1922, 54, 213
- May, Orville E., Herrick, Horace T., Thom, Charles, and Church, Margaret B. The production of gluconic acid by the *Penicillium luteum-purpurogenum* group. I, 1927, 75, 417
- Maynard, L. A., Fronda, F. M., and Chen, T. C. The protein efficiency of combinations of corn-meal and certain other feedingstuffs, notably rice bran, 1923, 55, 145
- , Goldberg, S. A., and Miller, R. C. The influence of sunlight on bone development in swine, 1925, 65, 643
- McAmis, Ava J. See HENDRIX and McAMIS, 1924, 59, xxii
1924, 61, 45
- McCandlish, A. C. See GAESSLER and McCANDLISH, 1923, 56, 663
- McCann, Gertrude F., and Barnett, Marion. Experimental rickets in rats. IX. The distribution of phosphorus and calcium between the skeleton and soft parts of rats on rachitic and non-rachitic diets, 1922, 54, 203
- McClendon, J. F. Chart for the conversion of colorimetric readings into hydrogen ion concentration, 1922, 54, 647
- Iodine in natural waters in relation to goiter, 1923, 55, xvi
- The application of G. Breit's formula for conductance through heterogeneous media to blood, 1924, 59, lvi

McClendon, J. F.—*continued.*

- The determination of hydrogen ions in the gastric contents, 1924, 59, 437
- The determination of iodine in food, drink, and excreta, 1924, 60, 289
- Movement of electrically charged atoms inside red blood corpuscles, 1925, 63, xiv
- The conductivity of erythrocytes to electric currents of high and low frequency, 1926, 67, vii
- Colloidal properties of the surface of the living cell. I. Conductivity of blood to direct electric currents, 1926, 68, 653
- II. Electric conductivity and capacity of blood to alternating currents of long duration and varying in frequency from 260 to 2,000,000 cycles per second, 1926, 69, 733
- , **Humphrey, Gertrude J.**, and **Loucks, Milo M.** A portable calorimeter for the determination of both oxygen and carbon dioxide, 1926, 69, 513
- , **Russell, Sidney**, and **Tracy, Edward.** The determination of hydrogen ions in the blood with the aid of the Duboseq colorimeter and ortho-chrom-T or para-nitrophenol, 1926, 70, 705

McClure, William B. The adaptation of the pentabromoacetone method to the quantitative determination of citric acid in the urine, 1922, 53, 357

- McCollum, E. V.**, **Simmonds, Nina**, **Shipley, P. G.**, and **Park, Edwards A.** Studies on experimental rickets. XVI. A delicate biological test for calcium-depositing substances, 1922, 51, 41
- , —, and **Becker, J. Ernestine.** On a type of ophthalmia caused by unsatisfactory relations in the inorganic portion of the diet. An ophthalmia not due to starvation for fat-soluble A, and not curable by its administration, 1922, 53, 313
- , —, —, and **Shipley, P. G.** Studies on experimental rickets. XXI. An experimental demonstration of the existence of a vitamin which promotes calcium deposition, 1922, 53, 293
- See **LEVINE, McCOLLUM**, and **SIMMONDS**, 1922, 53, 7
- See **ORTON, McCOLLUM**, and **SIMMONDS**, 1922, 53, 1
- , **Simmonds, Nina**, **Becker, J. Ernestine**, and **Shipley, P. G.** Studies on experimental rickets. XXIII. The production of rickets in the rat by diets consisting essentially of purified food substances, 1922, 54, 249
- See **SHIPLEY, KINNEY**, and **McCOLLUM**, 1924, 59, 165, 177
- , **Simmonds, Nina**, and **Becker, J. Ernestine.** Technique in the use of the rat for vitamin B studies, 1925, 63, 547
- , —, —, and **Bunting, R. W.** The effect of additions of

- fluorine to the diet of the rat on the quality of the teeth, 1925, 63, 553
- , —, and —. Further studies on the cause of ophthalmia in rats produced with diets containing vitamin A, 1925, 64, 161
- , —, —, and Shipley, P. G. Studies on experimental rickets. XXVI. A diet composed principally of purified foodstuffs for use with the "line test" for vitamin D studies, 1925, 65, 97
- , —, —, and —. XXVII. Variation of vitamin D content of butter fat as a factor in the development of rickets induced by diets suitable for preparing rats for the line test, 1926, 70, 437
- See SIMMONDS, BECKER, and McCOLLUM, 1927, 74, lxviii
- See ESTILL and McCOLLUM, 1927, 75, 157
- McCormick, N. A., and Noble, E. C. Insulin from fish, 1924, 59, xxix
- McDonald, Francis G. See BILLS, 1925, 66, 451
1926, 67, 753
- See BILLS and McDONALD, 1926, 68, 821
1927, 72, 1, 13
- McElroy, W. S., and Guthrie, C. C. Studies on the rate of oxygen absorption by blood, 1927, 74, xxxv
- McElroy, C. H. See HELLER, McELROY, and GARLOCK, 1925, 65, 255
- McGary, L. See BRUNQUIST, SCHNELLER, and LOEVENHART, 1924-25, 62, 93
- McGinty, Daniel A. See LEWIS and MCGINTY, 1922, 53, 349
- See LEWIS, MCGINTY, and MARVEL, 1924, 59, xiii
- See LEWIS, UPDEGRAFF, and MCGINTY, 1924, 59, 59
- , Lewis, Howard B., and Marvel, Carl S. Amino acid synthesis in the animal organism. The availability of some caproic acid derivatives for the synthesis of lysine, 1924-25, 62, 75
- and —. Lipase studies. III. The hydrolysis of the esters of the dicarboxylic acids by the lipase of the liver, 1926, 67, 567
- McGuigan, Hugh, and Brough, G. A. Rhythmic banding of precipitates (Liesegang's rings), 1923-24, 58, 415
- McGuire, Grace. See FALK and MCGUIRE, 1922, 54, 655
- and Falk, K. George. The influence of insulin on the glucose-fermenting action of *Bacillus coli*, 1924, 60, 489
- See GREENWALD, GROSS, and MCGUIRE, 1927, 75, 491
- McInerney, T. J. See SHARP and MCINERNEY, 1926, 70, 729
1927, 75, 177
- McIntosh, J. F. See SALVESEN, HASTINGS, and MCINTOSH, 1924, 60, 311, 327
- McKee, Mary C., and Smith, Arthur H. Some nitrogenous constituents of the cauliflower bud. I. Protein fractions, 1926, 70, 273

- McKenzie, Alex., and Tudhope, Thomas Martin Aitken.** Experiments on the Walden inversion. Part XI. Substitution by halogen of the hydroxyl group in the secondary octyl alcohols, 1924-25, 62, 551
- McKittrick, Elizabeth J.** See **BOGERT** and **McKITTRICK**, 1922, 54, 363
- McLaughlin, Laura, and Blunt, Katharine.** Some observations on the creatinine excretion of women, 1923-24, 58, 285
- and —. Urinary excretion of organic acid and its variation with diet, 1923-24, 58, 267
- . See **BLUNT**, **TILT**, **McLAUGHLIN**, and **GUNN**, 1926, 67, 491
- . Utilization of the calcium of spinach, 1927, 74, 455
- McLean, Franklin C.** See **AUSTIN**, **CULLEN**, **HASTINGS**, **McLEAN**, **PETERS**, and **VAN SLYKE**, 1922, 54, 121
- . See **VAN SLYKE**, **WU**, and **McLEAN**, 1923, 56, 765
- McLean, L. F.** See **SIMPSON**, 1924, 59, 107
- McMeekin, T. L., and Koch, Fred C.** Studies on the purification of pepsin, 1926, 67, xiii
- McNally, William D., Embree, H. C., and Rust, C. A.** Alcoholic content of normal placental tissue, 1927, 74, 219
- McQuarrie, Irvine.** See **SHOHL** and **McQUARRIE**, 1925, 63, xii
- and **Shohl, Alfred T.** A colorimetric method for the determination of the pH of cerebrospinal fluid, 1925, 66, 367
- and **Keith, H. M.** Variations in the urinary and blood acetone bodies during the day in children on ketogenic diets, 1927, 74, xvi
- Medes, Grace.** Calcium, phosphorus, and magnesium metabolism in the rat, 1926, 67, xxxii
- . Magnesium metabolism on purified diets, 1926, 68, 295
- and **Humphrey, Gertrude J.** Magnesium content of normal rats at different ages, 1927, 74, 149
- Medlock, Olin C.** See **DYE**, **MEDLOCK**, and **CREST**, 1927, 74, 95
- Meek, Walter.** See **CHEN**, **MEEK**, and **BRADLEY**, 1924, 61, 807
- Meeker, George H., and Oser, Bernard L.** Titrimetric double hydrogen or quinhydrone electrode systems for hydron determination; applications to urine and blood, 1926, 67, 307
- Meigs, Edward B., and Turner, William A.** Calcium and phosphorus metabolism in dairy cows, 1925, 63, xxix
- Menaul, Paul.** The hypobromite reaction on urea, 1922, 51, 87
- Mendel, Lafayette B.** See **OSBORNE** and **MENDEL**, 1922, 54, 739
- 1923-24, 58, 363
- 1924, 59, 13, xlv, 339
- 1925, 63, 233
- 1926, 69, 661

- See OSBORNE, MENDEL, PARK, and WINTERNITZ, 1926-27, 71, 317
- See ARNOLD and MENDEL, 1927, 72, 189
- and Cannon, Helen C. The relation of the rate of growth to diet. II, 1927, 75, 779
- See HUBBELL and MENDEL, 1927, 75, 567
- Menitoff, A.** See BEUTNER and MENITOFF, 1927, 72, 759
- Menten, Maud L.** Changes in the blood sugar of the cod, sculpin, and pollock during asphyxia, 1927, 72, 249
- and Manning, Helen M. Hyperglycemia and hypoglycemia produced by Witte's peptone, 1927, 72, 255
- Merrill, Alice Thompson.** A note on the relation of pH to tungstic acid precipitation of protein, 1924, 60, 257
- See SHERMAN and MERRILL, 1925, 63, 331
- Merrill, John A.** See SCHMIDT and MERRILL, 1923, 55, xx
1923-24, 58, 601
- Meyer, G. M.** See LEVENE and MEYER, 1922, 53, 431, 437
1922, 54, 805
1923, 55, 221
1923, 57, 317, 319
1924, 59, 145
1924, 60, 167, 173
1925, 64, 473
1925, 65, 535
1926, 69, 175
1926, 70, 343
1927, 74, 695, 701
- von Meysenbug, L.** See DENIS and VON MEYSENBUG, 1922, 52, 1
1923, 57, 47
- Michaelis, A. M.** Clinical calorimetry. XXXVI. A graphic method of determining certain numerical factors in metabolism, 1924, 59, 51
- Mikeska, L. A.** See LEVENE and MIKESKA, 1922, 52, 485
1922, 54, 101
1923, 55, 795
1924, 59, 473
1924, 60, 1, 685
1925, 63, 85
1925, 65, 507, 515
1926, 70, 355, 365
1927, 75, 587
- See LEVENE, MORI, and MIKESKA, 1927, 75, 337
- Milhorat, Adolph T.** See DEUEL, CHAMBERS, and MILHORAT, 1926, 69, 249
- See DEUEL, MILHORAT, and SWEET, 1927, 74, xl
- See DEUEL, WILSON, and MILHORAT, 1927, 74, 265
- See CHAMBERS, DEUEL, and MILHORAT, 1927, 75, 423
- Miller, Harry G.** Potassium in animal nutrition. I. Influence of potassium on urinary sodium and chlorine excretion, 1923, 55, 45
- II. Potassium in its relation to the growth of young rats, 1923, 55, 61
- and Yates, W. W. The relation of natural foodstuffs and their treatment on growth and reproduction, 1924-25, 62, 259

Miller, Harry G.—*continued.*

— Potassium in animal nutrition. III. Influence of potassium on total excretion of sodium, chlorine, calcium, and phosphorus,

1926, 67, 71

— IV. Potassium requirements for normal growth and maintenance,

1926, 70, 587

— V. Influence of potassium on urinary and fecal excretion of sodium, chlorine, calcium, and phosphorus,

1926, 70, 593

— Sodium deficiency in a corn ration,

1926, 70, 759

Miller, R. C. See HUNT, WINTER, and MILLER,

1923, 55, 739

— See MAYNARD, GOLDBERG, and MILLER,

1925, 65, 643

Miller, Robert C. See BOYNTON and MILLER,

1927, 75, 613

Miller, T. Grier. See JONAS, MILLER, and TELLER,

1925, 63, lv

Millet, John A. P. See HENDERSON and MILLET,

1927, 75, 559

Mills, C. A. Effect of food ingestion on the clotting time of the blood,

1923, 55, xviii

Milner, E. W. See QUINN, BURTIS, and MILNER,

1927, 72, 557

Minot, A. S. Lead studies.

II. A critical note on the electrolytic determination of lead in biological material,

1923, 55, 1

Minot, George R. See COHN,

MINOT, FULTON, ULRICH, SARGENT, WEARE, and MURPHY,

1927, 74, lxi

Miriam, S. R. See NOVELLO, MIRIAM, and SHERWIN,

1926, 67, 555

—, Wolf, J. T., and Sherwin, Carl P. Comparative metabolism of certain aromatic acids. XI. Fate of diphenylacetic acid in the animal body,

1926-27, 71, 249

—, —, and —. XII. Fate of triphenylacetic acid, also triphenylmethane, and triphenylcarbinol in the animal body,

1926-27, 71, 695

Mirsky, A. E. See ANSON and MIRSKY,

1927, 74, lvii

Mitchell, H. H., Nevens, W. B., and Kendall, F. E. The relation between the endogenous catabolism and the non-protein constituents of the tissues,

1922, 52, 417

— The biological value of proteins at different levels of intake,

1923-24, 58, 905

— A method of determining the biological value of protein,

1923-24, 58, 873

— The supplementary relations among proteins,

1923-24, 58, 923

— and Carman, G. G. The biological value for maintenance and growth of the proteins of whole wheat, eggs, and pork,

1924, 60, 613

— and —. The biological value of the nitrogen of mixtures of patent white flour and animal foods,

1926, 68, 183

- and —. Does the addition of sodium chloride increase the value of a corn ration for growing animals?
1926, 68, 165
- and Beadles, Jessie R. The protein value in nutrition of beef liver, beef heart, and beef kidney,
1926-27, 71, 429
- , —, and Keith, M. Helen. The value of cocoa and chocolate as sources of protein in the diet, 1926-27, 71, 15
- , Zimmerman, R. L., and Hamilton, T. S. The determination of the amount of connective tissue in meat,
1926-27, 71, 379
- , Beadles, Jessie R., and Kruger, John Henry. The relation of the connective tissue content of meat to its protein value in nutrition,
1927, 73, 767
- Mitchell, Helen S., and Schmidt, Lola. The relation of iron from various sources to nutritional anemia,
1926, 70, 471
- and Vaughn, Margery. The relation of inorganic iron to nutritional anemia,
1927, 74, lxxviii
1927, 75, 123
- Moeller, Otto. See JONES and MURPHY,
1924, 59, 243
- See JONES, GERSDORFF, and MOELLER,
1924-25, 62, 183
1925, 64, 655
- See JONES, MOELLER, and GERSDORFF,
1925, 65, 59
- See JONES and MOELLER,
1927, 74, liv
- Möller, Eggert. See LUNDGAARD and MÖLLER,
1922, 52, 377
1923, 55, 315, 477, 599
- Moloney, P. J., and Findlay, D. M. Concentration of insulin by adsorption on benzoic acid,
1923, 57, 359
- Montgomery, Richard Clifton. See HARDING and MONTGOMERY,
1927, 73, 27
- Moore, J. M. See HUGHES, PAYNE, TITUS, and MOORE,
1925, 66, 595
- Moore, Olive J. See JACKSON, SHERWOOD, and MOORE,
1927, 74, 231
- Moorhead, J. J., Schmitz, H. W., Cutter, Lois, and Myers, Victor C. The phosphorus and calcium concentration of the serum of patients during the period of fracture union,
1923, 55, xiii
- Moorhouse, V. H. K. See CAMERON and MOORHOUSE,
1925, 63, 687
- Morgan, Agnes Fay, and Osburn, Dorothy F. The effect of vitamin A deficiency upon the character of nitrogen metabolism,
1925, 66, 573
- Morgan, David Percy, Jr. See NELSON and MORGAN,
1923-24, 58, 305
- Morgan, William O. P. See MURRAY and MORGAN,
1925, 65, 419
- Morgulis, Sergius. The effect of injections of various substances upon the blood composition of the tortugas crawfish *Panulirus argus*,
1923, 55, xxxiv

Morgulis, Sergius.—*continued.*

- A study of the blood of the crawfish *Panulirus argus* with special reference to the absence of creatinine in arthropod blood,

1923, 55, xxxvi

- and Edwards, A. C. Chemical changes produced in the blood by fasting and subsequent refeeding,

1924, 59, xxvii

- Uric acid formation in the crustacean, *Panulirus argus*,

1925, 63, xviii

- and Barkus, Otakar. Studies on glycolysis,

1925, 63, lxviii

- and —. Studies on glycolysis *in vitro*,

1925, 65, 1

- Blood changes during digestion with special reference to urea formation,

1925, 66, 353

- , Beber, M., and Rabkin, I. Studies on the effect of temperature on the catalase reaction. I. Effect of different hydrogen peroxide concentrations,

1926, 68, 521

- , —, and —. II. Loss of catalase activity,

1926, 68, 535

- , —, and —. III. Temperature effect at different hydrogen ion concentrations. IV. A theory of the catalase reaction,

1926, 68, 547

- and —. V. The temperature correction in catalase determinations,

1927, 72, 91

- and Hamsa, W. R. Studies on urinary acidity, and a method for electrometric

titration of urine,

1927, 74, 851

- Mori, T. See LEVENE, MORI, and MIKESKA,

1927, 75, 337

- Moritz, Alan R. The effect of ultra-violet irradiation on the state of the serum calcium,

1925, 64, 81

- The state of the serum calcium in experimental hypo- and hypercalcemia,

1925, 66, 343

- See GOLDBLATT and MORITZ,

1926-27, 71, 127

1927, 72, 321

- Morrell, Joseph A. See HUNTER and MORRELL,

1927, 74, lx

- Morris, J. Lucien, and Jersey, Vernon. A chemical study of saliva,

1923, 55, xviii

- and —. Chemical constituents of saliva as indices of glandular activity,

1923, 56, 31

- and Way, Charles T. Further observations on chemical constituents of saliva,

1924, 59, xxvi

- Morse, Minerva. See SCHLUTZ, ZIEGLER, and MORSE,

1927, 73, 209

- Morse, Stanley W. See BODANSKY, MORSE, KIECH, and BRAMKAMP,

1927, 74, 463

- Morse, Withrow. The enzymes of the red blood corpuscles of the mammal,

1923, 55, xxvii

- The rise of acidity in autolysis,

1923, 55, viii

- Mortimer, E. See ROWE, ALCOTT, and MORTIMER,

1924, 59, xli

- Mosenthal, Herman O., and Killian, John A. The influence of alkali therapy on ketosis in diabetes mellitus, 1923, 55, xliii
- Moulton, C. R. Age and chemical development in mammals, 1923, 57, 79
- Mudge, Courtland S. See LEIGHTON and MUDGE, 1923, 56, 53
- Mueller, J. Howard. A study of the non-cystine-protein sulfur, 1923, 55, xv
- A new sulfur-containing amino acid isolated from the hydrolytic products of protein, 1923, 56, 157
- A new sulfur-containing amino acid isolated from the hydrolytic products of protein. II. Sulfur excretion after ingestion, 1923-24, 58, 373
- Muenzen, Joseph B., Cerecedo, Leopold R., and Sherwin, Carl P. Acetylation as a detoxicating reaction, 1925, 63, xvi
- , —, and —. Comparative metabolism of certain aromatic acids. VIII. Acetylation of amino compounds, 1926, 67, 469
- , —, and —. X. Fate of *m*-nitro-, *m*-amino-, *m*-hydroxy-, and *m*-chlorophenylacetic acids in man, the dog, and the rabbit, 1926, 68, 503
- Muhlfeld, Marie. See SHERMAN and MUHLFELD, 1922, 53, 41
- See LEVENE and MUHLFELD, 1923, 57, 341
- Muldoon, Joseph A., Shipley, George J., and Sherwin, Carl P. Synthesis of amino acids in the animal organism. III. Concerning the synthesis of cystine in the body of the dog, 1924, 59, 675
- See SHIPLEY, MULDOON, and SHERWIN, 1924, 60, 59
- Munford, Samuel A. See HUBBARD and MUNFORD, 1922, 54, 465
- Muntwyler, Edward. See MYERS and MUNTWYLER, 1927, 74, xxxiv
- Murlin, John R. See CLOUGH, STOKES, GIBBS, STONE, and MURLIN, 1923, 55, xxx
- , Clough, Harry D., Gibbs, C. B. F., and Stokes, Arthur M. Aqueous extracts of pancreas. I. Influence on the carbohydrate metabolism of depancreatized animals, 1923, 56, 253
- See KIMBALL and MURLIN, 1923-24, 58, 337
- See PIPER, ALLEN, and MURLIN, 1923-24, 58, 321
- See HAWLEY and MURLIN, 1924, 59, xxxii
- See PIPER, ALLEN, and MURLIN, 1924, 59, xxxii
- See GAEBLER and MURLIN, 1925, 66, 731
- Murphy, Joseph C. See JONES and MURPHY, 1924, 59, 243
- and Jones, D. Breese. Proteins of wheat bran. III. The nutritive properties of the proteins of wheat bran, 1926, 69, 85
- Murphy, William P. See COHN, MINOT, FULTON, ULRICH, SARGENT, WEARE, and MURPHY, 1927, 74, lxi

Murray, Cecil D. The acid-base equilibrium in simple two-phase systems,

1923, 56, 569

— See **HASTINGS, SENDROY, MURRAY, and HEIDELBERGER,**

1924, 61, 317

— and **Hastings, A. Baird.** The maintenance of carbonic acid equilibrium in the body, with especial reference to the influence of respiration and kidney function on CO_2 , H^+ , HCO_3' , and CO_3'' concentrations in plasma,

1925, 65, 265

— and **Morgan, William O. P.** Oxygen exchange, blood, and the circulation. A coordinated treatment of the factors involved in oxygen supply on the basis of the diffusion theory,

1925, 65, 419

— See **HENDERSON and MURRAY,**

1925, 65, 407

— See **VAN SLYKE, HASTINGS, MURRAY, and SENDROY,**

1925, 65, 701

— See **HASTINGS, MURRAY, and SENDROY,**

1926-27, 71, 723

Murray, H. A., Jr., See **FELTY and MURRAY,**

1923, 57, 573

Mussehl, F. E. See **ACKERSON, BLISH, and MUSSEHL,**

1925, 63, 75

Myers, Victor C. A colorimeter for bicolorimetric work,

1922, 54, 675

— See **MOORHEAD, SCHMITZ, CUTTER, and MYERS,**

1923, 55, xiii

—, **Schmitz, Herbert W., and Booher, Lela E.** A micro colorimetric method of estimating the hydrogen ion

concentration of the blood,

1923, 57, 209

— and **Booher, Lela E.** Some variations in the acid-base balance of the blood in disease,

1924, 59, xxiii, 699

— and **Muntwyler, Edward.** A study of the acid-base equilibria of the blood in cases receiving alkali,

1927, 74, xxxiv

N

Nabenhauer, Fred P. See

ANDERSON and NABENHAUER,

1924, 61, 97

— See **ANDERSON, NABENHAUER, and SHRINER,**

1926-27, 71, 389

Nash, Thomas P., Jr. The kidney factor in phlorhizin diabetes,

1922, 51, 171

— and **Benedict, Stanley R.** Note on the ammonia content of blood,

1922, 51, 183

— and —. On the mechanism of phlorhizin diabetes. I,

1923, 55, 757

— **Insulin and phlorhizin diabetes,**

1923-24, 58, 453

— and **Benedict, Stanley R.** On the mechanism of phlorhizin diabetes. II,

1924, 61, 423

— **Insulin and phlorhizin diabetes. II. With some further observations on the mechanism of phlorhizin diabetes,**

1925, 66, 869

— See **BENEDICT and NASH,**

1926, 69, 381

Neill, James M. See **VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL,**

1922, 54, 481

- See VAN SLYKE, HASTINGS, and NEILL, 1922, 54, 507
- See HASTINGS, VAN SLYKE, NEILL, and HEIDELBERGER, 1924, 59, xx
- See HASTINGS, VAN SLYKE, NEILL, HEIDELBERGER, and HARRINGTON, 1924, 60, 89
- See VAN SLYKE and NEILL, 1924, 61, 523
- and Hastings, A. Baird. The influence of the tension of molecular oxygen upon certain oxidations of hemoglobin, 1925, 63, 479
- Nelson, E. M. See STEENBOCK, SELL, and NELSON, 1923, 55, 399
- See STEENBOCK and NELSON, 1923, 56, 355
- See STEENBOCK, SELL, and NELSON, 1923, 56, 327
- and Steenbock, H. Fat-soluble vitamins. XXI. Observations bearing on the alleged induction of growth-promoting properties in air by irradiation with ultraviolet light, 1924-25, 62, 575
- See STEENBOCK, BLACK, NELSON, NELSON, and HOPPERT, 1925, 63, xxv
- and Steenbock, H. Fat-soluble vitamins. XXIV. The non-precipitability of the antiophthalmic and anti-rachitic properties from cod liver oil by digitonin, 1925, 64, 299
- Nelson, J. M., and Hollander, Franklin. Uniformity in invertase action, 1923-24, 58, 291
- and Morgan, David Percy, Jr. Collodion membranes of high permeability, 1923-24, 58, 305
- and Kerr, Ralph W. E. Uniformity in invertase action. III. The stability of the enzyme, 1924, 59, 495
- and Cohn, David J. Invertase in honey, 1924, 61, 193
- and Sottery, C. Theodore. Influence of glucose and fructose on the rate of hydrolysis of sucrose by invertase from honey, 1924-25, 62, 139
- and Freeman, Benjamin. Hydrolysis of sucrose by invertase in the presence of α -methylglucoside. I, 1925, 63, 365
- and Post, C. Irwin. Hydrolysis of sucrose by invertase in the presence of α -methylglucoside. II, 1926, 68, 265
- and Anderson, Rubert S. Glucose and fructose retardation of invertase action, 1926, 69, 443
- and Larson, H. W. Kinetics of invertase action, 1927, 73, 223
- Nelson, Mariana T. See BETHKE, STEENBOCK, and NELSON, 1923-24, 58, 71
- See LEPKOVSKY and NELSON, 1924, 59, 91
- See STEENBOCK, NELSON, and BLACK, 1924, 59, ix
- See STEENBOCK and NELSON, 1924-25, 62, 209

- Nelson, Mariana T.**—*continued*.
 —. See STEENBOCK, NELSON, and BLACK, 1924-25, 62, 275
 —. See STEENBOCK, BLACK, NELSON, NELSON, and HOPPERT, 1925, 63, xxv
 —. See STEENBOCK and BLACK, 1925, 64, 263
Nelson, Victor E. See FULMER and NELSON, 1922, 51, 77
 —, Heller, V. G., and Fulmer, E. I. Studies on yeast. VII. The dietary properties of yeast, 1923, 57, 415
 —. See FULMER, NELSON, and WHITE, 1923, 57, 397
Neuhausen, Benjamin S. Free and bound water in the blood, 1922, 51, 435
 — and Marshall, E. K., Jr. An electrochemical study of the condition of several electrolytes in the blood, 1922, 53, 365
 — and Rioch, David M. The refractometric determination of serum proteins, 1923, 55, 353
 — and Pincus, J. B. A study of the condition of several inorganic constituents of serum by means of ultra-filtration, 1923, 57, 99
Neuwirth, Isaac. Studies in carbohydrate metabolism. III. A study of urinary sugar excretion in twenty-six individuals, 1922, 51, 11
Nevens, W. B. See MITCHELL, NEVENS, and KENDALL, 1922, 52, 417
Newcomer, H. S. A new optical instrument for the determination of hemoglobin, 1923, 55, 569
Newman, Lloyd H. See FOLIN, TRIMBLE, and NEWMAN, 1927, 75, 263
Newton, Eleanor B., and Davis, Alice Rohde. Combined uric acid in human, horse, sheep, pig, dog, and chicken blood, 1922, 54, 603
 — and —. The distribution of the combined uric acid in the corpuscles of beef blood, 1922, 54, 601
 —. See DAVIS, NEWTON, and BENEDICT, 1922, 54, 595
 —. See BENEDICT, NEWTON, and BEHRE, 1926, 67, 267
 —, Benedict, Stanley R., and Dakin, H. D. On thiasine, its structure and identification with ergothioneine, 1927, 72, 367
Ni, Tsang G. See BERGLUND and NI, 1925, 63, xlviii
Nichols, Emily G. See ATCHLEY and NICHOLS, 1925, 65, 729
 —. See LOEB and NICHOLS, 1927, 72, 687
 1927, 74, 645
Nicholson, Samuel T., Jr. See HUBBARD and NICHOLSON, 1922, 53, 209
Nitcher, Charles. See HUGHES, NITCHER, and TITUS, 1925, 63, 205
Noback, Charles V. See SUMNER, GRAHAM, and NOBACK, 1924, 59, xx
 —. See SUMNER, 1924-25, 62, 287
 —. See HUBBARD and NOBACK, 1925, 63, 391

- Noble, E. C. See McCORMICK and NOBLE, 1924, 59, xxix
- Nolan, Laurence S. See OSBORNE, LEAVENWORTH, and NOLAN, 1924, 61, 309
- See CHIBNALL and NOLAN, 1924-25, 62, 173, 179
- Nord, F. F. See KENDALL and NORD, 1926, 69, 295
- On the mechanism of enzyme action, 1927, 74, lviii
- Norgaard, A. See GRAM and NORGAARD, 1923, 56, 429
- North, H. B. See HJORT, NORTH, and TENDICK, 1926, 67, xxxvi
- du Noüy, P. Lecomte. On the probable dimensions of the molecule and molecular weight of crystalline egg albumin, 1925, 64, 595
- A densimeter for the rapid determination of the specific gravity of small quantities of liquids and solids, 1927, 74, 443
- Novello, N. Jean, Harrow, Benjamin, and Sherwin, Carl P. Studies in methylation, 1926, 67, liv
- , Miriam, S. R., and Sherwin, Carl P. Comparative metabolism of certain aromatic acids. IX. Fate of some halogen derivatives of benzoic acid in the animal body, 1926, 67, 555
- The fate of certain heterocyclic ring compounds in the animal body, 1927, 74, 33
- Noyes, Helen Miller. See FALK, NOYES, and SUGIURA, 1922, 53, 75
- , Sugiura, Kanematsu, and Falk, K. George. Studies on enzyme action. XXII. The lipolytic actions of various tissue and tumor extracts at different hydrogen ion concentrations, 1923, 55, 653
- See SUGIURA, NOYES, and FALK, 1923, 56, 903
- See FALK, NOYES, and SUGIURA, 1924, 59, 183, 213, 225
- and Falk, K. George. Studies on enzyme action. XXIX. Comparative lipase actions of different rabbit tissues, 1924-25, 62, 687
- See FALK, NOYES, and SUGIURA, 1924-25, 62, 697
- , Lorberblatt, I., and Falk, K. George. Studies on enzyme action. XXXIV. Actions of some ester-hydrolyzing enzymes at different temperatures, 1926, 68, 135
- and Falk, K. George. Studies on enzyme action. XL. Time changes in ester-hydrolyzing actions of extracts of whole rats of different ages, 1927, 72, 449
- and —. XLII. Time changes in ester-hydrolyzing actions of extracts of the two types of uterine fibroids and of uterine muscle of human origin, 1927, 72, 475
- See FALK and NOYES, 1927, 72, 467, 489

O

- O'Connor, Marie. See LENNOX, 1925, 66, 521
- von Oettingen, W. F., and Sollmann, Torald. On the action of mercuric chloride and of hydrogen dioxide on bile pigments, 1927, 72, 635
- Okada, Seizaburo, and Arai, Minoru. The hydrogen ion concentration of the intestinal contents, 1922, 51, 135
- and Hayashi, Toworu. Studies on the amino acid nitrogen content of the blood, 1922, 51, 121
- Okey, Ruth. Cyclic variations in the composition of fasting bloods in women, 1925, 63, xxxiii
- and Robb, Elda I. Studies of the metabolism of women. I. Variations in the fasting blood sugar level and in sugar tolerance in relation to the menstrual cycle, 1925, 65, 165
- and Erikson, Statie E. Studies of the metabolism of women. II. Cyclic variations in uric acid and total non-protein nitrogen content of blood, 1926, 68, 687
- and Boyden, Ruth E. Studies of the metabolism of women. III. Variations in the lipid content of blood in relation to the menstrual cycle, 1927, 72, 261
- Olmsted, J. M. D., and Taylor, A. C. The effect of insulin on the oxygen saturation of hemoglobin, 1924, 59, xxx
- Olsen, Aksel G. See WILLAMAN and OLSEN, 1923, 55, 815
- Orr, Thomas G. See HADEN and ORR, 1925, 65, 479
- Ort, John M. The oxidation and reduction potentials of some compounds closely related to thyroxin, 1926, 67, x
- See KENDALL and ORT, 1926, 68, 611
- Orton, C. R., McCollum, E. V., and Simmonds, Nina. Observations on the presence of the antineuritic substance, water-soluble B, in chlorophyll-free plants, 1922, 53, 1
- Osborne, Thomas B., Wake-man, Alfred J., and Leavenworth, Charles S. The water-soluble constituents of the alfalfa plant, 1922, 53, 411
- and Mendel, Lafayette B. Quantitative aspects of the rôle of vitamin B in nutrition, 1922, 54, 739
- and —. The effect of diet on the content of vitamin B in the liver, 1923-24, 58, 363
- See LEAVENWORTH, WAKEMAN, and OSBORNE, 1923-24, 58, 209
- and Mendel, Lafayette B. Nutrition and growth on diets highly deficient or entirely lacking in preformed carbohydrates, 1924, 59, 13, xlv
- and —. The nutritive value of lactalbumin, 1924, 59, 339
- , Leavenworth, Charles S., and Nolan, Laurence S. A

- note on Dakin's method as applied to edestin, 1924, 61, 309
- and Mendel, Lafayette B. The rôle of vitamin B in relation to the size of growing rats, 1925, 63, 233
- and —. The relation of the rate of growth to diet. I, 1926, 69, 661
- , —, Park, Edwards A., and Winternitz, Milton C. Physiological effects of diets unusually rich in protein or inorganic salts, 1926–27, 71, 317
- Osburn, Dorothy F. See MORGAN and OSBURN, 1925, 66, 573
- Oser, Bernard L., and Karr, Walter G. The correction of Folin-Wu blood sugar values, 1926, 67, 319
- . See MEEKER and OSER, 1926, 67, 307
- Osgood, Edwin E., and Haskins, Howard D. A new permanent standard for estimation of hemoglobin by the acid hematin method, 1923, 57, 107
- . See HASKINS and OSGOOD, 1926, 67, lx
- Osterberg, Emil. See BENEDICT and OSTERBERG, 1923, 55, 769
- 1923, 56, 229
- Outhouse, Julia. See MACY, OUTHOUSE, LONG, and HOOBLER, 1926, 67, li
- , Macy, Icie G., Brekke, Viola, and Graham, Alice. Human milk studies. IV. A note on the vitamin A and B content of cow's milk, 1927, 73, 203
- . See MACY, OUTHOUSE, GRAHAM, and LONG, 1927, 73, 175, 189
- . See MACY, OUTHOUSE, LONG, and GRAHAM, 1927, 73, 153
- . See MACY, OUTHOUSE, LONG, BROWN, HUNSCHER, and HOOBLER, 1927, 74, xxxi
- Paddock, R. K. See ROBINSON and HUFFMAN, 1926, 67, 257
- Page, Irvine H. Asteriasterol—a new sterol from the starfish and the sterols of certain other marine echinoderms, 1923, 57, 471
- Palmer, Leroy S. See KENNEDY and PALMER, 1922, 54, 217
- and Knight, Harry H. Anthocyanin and flavone-like pigments as cause of red colorations in the hemipterous families Aphididæ, Coreidæ, Lygaeidæ, Miridæ, and Reduviidæ, 1924, 59, 451
- and —. Carotin—the principle cause of the red and yellow colors in *Perillus bioculatus* (Fab.), and its biological origin from the lymph of *Leptinotarsa decemlineata* (Say), 1924, 59, 443
- and Kennedy, Cornelia. The fundamental food requirements for the growth of the rat. I. Growth on a simple diet of purified nutrients, 1927, 74, 591
- and —. II. The effect of variations in the proportion and quality of recognized nutrients, 1927, 75, 619

- Palmer, Walter W.** See JACKSON and PALMER,
1922, 53, 373
— The titration of organic acids in urine,
1926, 68, 245
- Pappenheimer, A. M., and Dunn, L. C.** The relation of leg weakness in growing chicks to mammalian rickets,
1925, 66, 717
- Park, Edwards A.** See MCCOLLUM, SIMMONDS, SHIPLEY, and PARK,
1922, 51, 41
— See POWERS, PARK, and SIMMONDS,
1923, 55, 575
— See OSBORNE, MENDEL, PARK, and WINTERITZ,
1926-27, 71, 317
- Parsons, Eloise, and Koch, Fred C.** Histamine as a constituent of secretin preparations,
1924, 59, xxxviii
- Parsons, Helen T., and Hutton, Mary K.** Some further observations concerning the antiscorbutic requirement of the rat,
1924, 59, 97
— and Reynolds, May S. The depletion of vitamin C in the liver of the guinea pig on a scorbutic ration,
1924, 59, 731
- Parsons, T. R.** See LA MER and PARSONS,
1923, 57, 613
- Paton, Julia B.** See FUNK, HARROW, and PATON,
1923, 57, 153
- Paul, John R.** Rotatory and reducing values of glucose as influenced by the addition of muscle tissue and insulin *in vitro*,
1926, 68, 425
- Payne, L. F.** See HUGHES, PAYNE, TITUS, and MOORE,
1925, 66, 595
- Peacock, Gail E.** See EMMETT and PEACOCK,
1923, 56, 679
1925, 63, xxiii
- Pederson, C. S., Peterson, W. H., and Fred, E. B.** The forms of lactic acid produced by pure and mixed cultures of bacteria,
1926, 68, 151
- Pelkan, K. F.** See BLOOR, PELKAN, and ALLEN,
1922, 52, 191
- Pemberton, Ralph.** See CAJORI, CROUTER, and PEMBERTON,
1923, 57, 217
1925, 66, 89
— See CAJORI and PEMBERTON,
1927, 74, xxii
- Perkins, Marie E.** See JONES and PERKINS,
1923, 55, 343, 557, 567
1924-25, 62, 291, 557
— See BUELL and PERKINS,
1927, 72, 21, 745
- Perry, E. E.** See ALSBERG and PERRY,
1925, 63, lxvi
- Peter, A. M.** See BUCKNER, MARTIN, PIERCE, and PETER,
1922, 51, 51
— See BUCKNER and PETER,
1922, 54, 5
- Peters, John P., Cullen, Glenn E., and Austin, J. Harold.** Studies of gas and electrolyte equilibria in blood. II. The reversibility of the effects of changes in carbon dioxide and oxygen tensions on the carbon dioxide content of defibrinated horse blood,
1922, 54, 149
— See AUSTIN, CULLEN, HASTINGS, MCLEAN, PETERS, and VAN SLYKE,
1922, 54, 121
—, Bulger, Harold A., and Eisenman, Anna J. Studies

- of the carbon dioxide absorption curve of human blood. I. The apparent variations of pK_1 in the Henderson-Hasselbalch equation, 1923, 55, 687
- , Eisenman, Anna J., and Bulger, Harold A. Studies of the carbon dioxide absorption curve of human blood. II. The nature of the curve representing the relation of pH to $BHCO_3$, 1923, 55, 709
- . Studies of the carbon dioxide absorption curve of human blood. III. A further discussion of the form of the absorption curve plotted logarithmically, with a convenient type of interpolation chart, 1923, 56, 745
- , Bulger, Harold A., and Eisenman, Anna J. Studies of the carbon dioxide absorption curve of human blood. IV. The relation of the hemoglobin content of blood to the form of the carbon dioxide absorption curve, 1923-24, 58, 747
- , —, and —. V. The construction of the carbon dioxide absorption curve from one observed point, 1923-24, 58, 769
- , —, and —. VI. The relationship of the carbon dioxide of blood to that of plasma, 1923-24, 58, 773
- , —, and —. Total acid-base equilibrium of plasma in health and disease. III. The differences between arterial and venous blood, 1926, 67, 165
- , —, —, and Lee, Carter. Total acid-base equilibrium of plasma in health and disease. I. The concentration of acids and bases in normal plasma, 1926, 67, 141
- , —, —, and —. IV. The effects of stasis, exercise, hypernea, and anoxemia; and the causes of tetany, 1926, 67, 175
- , —, —, and —. V. Miscellaneous pathologic conditions, 1926, 67, 219
- See EISENMAN, BULGER, and PETERS, 1926, 67, 159
- See WAKEMAN, EISENMAN, and PETERS, 1927, 73, 567
- Petersen, W. F., and Hughes, T. P. Inorganic alterations of the lymph in canine anaphylactic shock, 1925, 63, 179
- and —. Mineral metabolism of the lymph following injections of levo- and dextro-suprarenin, pituitrin, and pilocarpine, 1925, 66, 229
- Peterson, H. A. See PINCUS, PETERSON, and KRAMER, 1926, 68, 601
- Peterson, Vernon L., and West, Edward S. The volumetric estimation of hydroxyl groups in sugars and other organic compounds, 1927, 74, 379
- Peterson, W. H., Fred, E. B., and Anderson, J. A. The fermentation of hexoses and related compounds by certain pentose-fermenting bacteria, 1922, 53, 111

Peterson, W. H.—continued.

—, —, and **Schmidt, E. G.**
The fermentation of pentoses by molds,

1922, 54, 19

—, —, and —. The fermentation of pentoses by *Bacillus granulobacter pectinovorum*,

1924, 60, 627

—. See **SCHMIDT, PETERSON,**
and **FRED,**

1924, 61, 163

—, **Fred, E. B.,** and **Domogalla, B. P.** The occurrence of amino acids and other organic nitrogen compounds in lake water,

1925, 63, xl, 287

—. See **DOMOGALLA, JUDAY,**
and **PETERSON,**

1925, 63, 269

—. See **STILES, PETERSON,**
and **FRED,**

1925, 64, 643

—. See **PEDERSON, PETERSON,**
and **FRED,**

1926, 68, 151

—, **Fred, E. B.,** and **Marten, E. A.** The effect of molecular complexity on the end-products formed by *Clostridium thermocellum*,

1926, 70, 309

—. See **ELVEHJEM and PETERSON,**

1927, 74, 433

—. See **WILSON, PETERSON,**
and **FRED,**

1927, 74, 495

—. See **LINDOW and PETERSON,**

1927, 75, 169

Petrén, Karl. Low nitrogen metabolism with low carbohydrate diet in diabetes,

1924, 61, 355

Pfaltz, Mimosa H. See **LE-
VENE, SIMMS,** and **PFALTZ,**

1924, 61, 445

—. See **LEVENE and PFALTZ,**
1925, 63, 661
1926, 68, 277
1926, 70, 219

—. See **LEVENE, SIMMS,** and
PFALTZ,

1926, 70, 253

Phillips, S. See **WATERMAN,**
JOHNS, and **JONES,**

1923, 55, 93

Phillips, Thomas G. See **BUR-
RELL and PHILLIPS,**

1925, 65, 229

Pierce, H. F. Nitrocellulose membranes of graded permeability,

1927, 75, 795

Pierce, W. C. See **BUCKNER,**
MARTIN, PIERCE, and
PETER,

1922, 51, 51

Pincus, J. B., and **Kramer,**
Benjamin. Comparative

study of the concentration of various anions and cations in cerebrospinal fluid and serum,

1923, 57, 463

—. See **NEUHAUSEN** and
PINCUS,

1923, 57, 99

—, **Peterson, H. A.,** and
Kramer, Benjamin. A study by means of ultrafiltration of the condition of several inorganic constituents of blood serum in disease,

1926, 68, 601

Piper, H. A., Allen, R. S., and
Murlin, John R. Aqueous extracts of pancreas. II. Physical and chemical behavior of insulin,

1923-24, 58, 321

—, —, and —. On the purification of insulin,

1924, 59, xxxii

Plass, E. D. Variations in the distribution of the non-protein nitrogenous constituents of whole blood and

- plasma during acute retention and elimination,
1923, 56, 17
- and Tompkins, Edna H. Placental transmission. II. The various phosphoric acid compounds in maternal and fetal serum,
1923, 56, 309
- See BOGERT and PLASS,
1923, 56, 297
- and Bogert, L. Jean. Plasma protein as an index of hydroplasma during pregnancy,
1924, 59, xxiv
- Plummer, Norman H., Deuel, Harry J., Jr., and Lusk, Graham. Animal calorimetry. XXXIV. The influence of glycyl-glycine upon the respiratory metabolism of the dog,
1926, 69, 339
- Post, C. Irwin. See NELSON and Post,
1926, 68, 265
- Power, Marschelle H., and Greene, Carl H. Studies of the blood by vividialysis. I. The blood sugar,
1927, 74, xix
- Powers, G. F., Park, Edwards A., and Simmonds, Nina. The influence of radiant energy upon the development of xerophthalmia in rats: A remarkable demonstration of the beneficial influence of sunlight and out-of-door air upon the organism,
1923, 55, 575
- Pratt, Arnold E. The preparation of *D*-arginine carbonate,
1926, 67, 351
- Preisler, P. W. Electrometric reduction potentials of sugars,
1927, 74, xlviii
- Prentiss, Adela M. See COHN, HENDRY, and PRENTISS,
1925, 63, 721
- Přibyl, Emil. On the nitrogen metabolism in experimental subacute arsenic and antimony poisoning,
1927, 74, 775
- Proctor, Bernard Emerson. See ROWE and PROCTOR,
1927, 74, iii
- Pucher, George W. Studies on uric acid. I. Examination of the variables in the Folin and Wu uric acid method,
1922, 52, 317
- II. A modification of the Folin and Wu uric acid method,
1922, 52, 329
- and Cori, Karl F. Metabolic disturbances in cats on a milk diet,
1922, 54, 567
- See YOUNGBURG and PUCHER,
1924, 61, 741
- 1924-25, 62, 31
- Seasonal periodicity in man. I. A study of the blood chemistry of normal individuals over a period of two years,
1927, 74, xviii
- Quick, Armand J. A method for the quantitative determination of menthol glycuronic acid in urine,
1924, 61, 667
- The synthesis of menthol glycuronic acid in the rabbit,
1924, 61, 679
- The study of benzoic acid conjugation in the dog with a direct quantitative method for hippuric acid,
1926, 67, 477

Quick, Armand J.—*continued.*

- The preparation and study of β , d -glycuronic acid monobenzoate (benzoyl glycuronic acid),

1926, 69, 549

- On the origin of glycuronic acid in the organism,

1926, 70, 397

- The production of conjugated glycuronic acids in depancreatized dogs,

1926, 70, 59

- The preparation of borneol glycuronic acid and glycuronic acid,

1927, 74, 331

- Quinn, E. J.** See **SHERMAN** and **QUINN**,

1926, 67, 667, xxxiii

- **Burtis, M. P.**, and **Milner, E. W.** Quantitative studies of vitamins A, B, and C in green plant tissues other than leaves,

1927, 72, 557

- Rabinowitch, I. M.** On the action of thyroxin,

1924–25, 62, 245

- On the relative proportions of sodium, potassium, calcium, and magnesium in blood plasma in renal disease,

1924–25, 62, 667

- Blood sugar time curves following the ingestion of dihydroxyacetone,

1925, 65, 55

- Urea tests of renal efficiency. I,

1925, 65, 617

- Studies concerning the origin of urinary ammonia. III,

1926, 69, 283

- Observations on the metabolism of dihydroxyacetone

in normal and diabetic individuals,

1927, 75, 45

- Rabinowitch, J.** See **WHITE** and **RABINOWITCH**,

1927, 74, 449

- Rabkin, I.** See **MORGULIS**, **BEBER**, and **RABKIN**,

1926, 68, 521, 535, 547

- Raffel, Daniel.** A micro method for the quantitative determination of carbon dioxide in blood and other solutions, and some observations on the efficiency of paraffin oil as a means of keeping carbon dioxide in solution,

1927, 74, 839

- Rakestraw, Norris W.** See **SWAIN** and **RAKESTRAW**,

1923, 55, iv

- Chemical factors in fatigue. II. Further changes in some of the blood constituents following strenuous muscular exercise,

1923, 56, 121

- A quantitative method for the determination of phenols in blood,

1923, 56, 109

- Ralls, J. O.** See **DOISY**, **ALLEN**, **RALLS**, and **JOHNSTON**,

1924, 59, xliii

- See **DOISY**, **RALLS**, **ALLEN**, and **JOHNSTON**,

1924, 61, 711

- **Jordan, C. N.**, **Heusinkveld, C. T.**, and **Doisy, Edward A.** Some properties of the hormone of the liquor folliculi,

1926, 67, v

- , —, and **Doisy, Edward A.** An improved procedure for the extraction of the ovarian hormone and some chemical properties of the product,

1926, 69, 357

- Randles, F. S., and Knudson, Arthur.** The estimation of lipoid phosphoric acid ("lecithin") in blood by application of the Bell and Doisy method for phosphorus, 1922, 53, 53
- See **KNUDSON** and **RANDLES**, 1925, 63, xxxi
- and **Knudson, Arthur.** Studies on cholesterol. I. Synthesis of cholesterol in the animal body, 1925, 66, 459
- and —. Studies on cholesterol. The relation of the suprarenals and the spleen to cholesterol metabolism, 1926, 67, xvii
- Rapport, David.** See **ATKINSON, RAPPORT, and LUSK**, 1922, 53, 155
- See **RINGER** and **RAPPORT**, 1923-24, 58, 475
- Animal calorimetry. XXV. The relative specific dynamic action of various proteins, 1924, 60, 497
- , **Weiss, Robert, and Csonka, Frank A.** Animal calorimetry. XXVIII. The respiratory metabolism of a young pig as influenced by food and benzoic acid, 1924, 60, 583
- See **WEISS** and **RAPPORT**, 1924, 60, 513
- The specific dynamic action of gelatin hydrolysates, 1926-27, 71, 75
- and **Beard, Howard H.** The effects of protein split-products upon metabolism. I. The fraction extracted by and precipitated in butyl alcohol (Fraction I), 1927, 73, 285
- and —. II. The individual amino acids of Fraction I of the butyl alcohol extraction, and their relation to the specific dynamic action of protein, 1927, 73, 299
- Raymond, Albert L., and Winegarden, Howard M.** Cozymase. A study of purification methods, 1927, 74, 175
- and —. The determination of carbon dioxide in fermenting mixtures, 1927, 74, 189
- Read, Bernard E.** Metabolism studies with chaulmoogra oil. I. The influence of chaulmoogra oil on calcium metabolism, 1924-25, 62, 515
- II. The influence of the hydnocarpates upon urinary nitrogen partition in the dog, 1924-25, 62, 541
- Chemical constituents of camel's urine, 1925, 64, 615
- Redfield, Alfred C., Coolidge, Thomas B., and Hurd, Archer L.** The transport of oxygen and carbon dioxide by some bloods containing hemocyanin, 1926, 69, 475
- Reed, Lucille.** See **DENIS** and **REED**, 1926-27, 71, 191, 205
- 1927, 72, 385
- and **Denis, W.** On the distribution of the non-protein sulfur of the blood between serum and corpuscles, 1927, 73, 623
- See **DENIS** and **REED**, 1927, 73, 41, 51

- Reinhard, Melvin C.** See STENSTRÖM and REINHARD, 1925, 66, 819
1926, 69, 607
— and Buchwald, K. W. Influence of intense x-ray and γ -ray radiation on cholesterol, 1927, 73, 383
- Reinhold, John G., and Karr, Walter G.** Carbohydrate utilization. II. Rate of disappearance of various carbohydrates from the blood, 1927, 72, 345
- Reitzel, Raymond J.** See KOEHLER and REITZEL, 1925, 64, 739
- Remler, R. F.** See FORBES, SCHULZ, HUNT, WINTER, and REMLER, 1922, 52, 281
- Remsen, D. B.** See CALVERY and REMSEN, 1927, 73, 593
- Reynolds, May S.** See PARSONS and REYNOLDS, 1924, 59, 731
- Richards, A. N.** See WEARN and RICHARDS, 1925, 66, 247, 275
- Richardson, Henry B., and Mason, Edward H.** Clinical calorimetry. XXXIII. The effect of fasting in diabetes as compared with a diet designed to replace the food-stuffs oxidized during a fast, 1923, 57, 587
— and Ladd, William S. Clinical calorimetry. XXXIV. Ketosis and the respiratory exchange in diabetes, 1923–24, 58, 931
— and Levine, Samuel Z. Clinical calorimetry. XXXVII. Infection and the ketogenic balance, 1925, 63, 465
- See LADD and RICHARDSON, 1925, 63, 681
— and Levine, Samuel Z. Clinical calorimetry. XXXIX. Exercise and the respiratory quotient in diabetes, 1925, 66, 161
— Clinical calorimetry. XL. The effect of the absence of sweat glands on the elimination of water from the skin and lungs, 1926, 67, 397
—, Levine, Samuel Z., and Du Bois, Eugene F. Clinical calorimetry. XLI. The storage of glycogen in exophthalmic goiter, 1926, 67, 737
- Riddell, W. H.** See HUGHES, FITCH, CAVE, and RIDDELL, 1926–27, 71, 309
- Ridout, J. H.** See BEST and RIDOUT, 1925, 63, 197
- Riegel, Cecilia.** Formation of lactic acid in the body after severe hemorrhage, 1927, 74, 123
— The rate of disappearance of sodium lactate injected intravenously and its effect upon sugar and inorganic phosphate of the blood, 1927, 74, 135
- Riesenfeld, Edwin A.** See ROSE, RIESENFELD, and HANDLEMAN, 1925, 63, xlii
- Riggs, Margaret D.** See JACKSON and RIGGS, 1926, 67, 101
- Riising, Blanche M.** See STEENBOCK and BLACK, 1925, 64, 263
— See STEENBOCK, HART, ELVEHJEM, and KLETZIEN, 1925, 66, 425

- See STEENBOCK, HART, RIISING, and HOPPERT, 1927, 74, lxxiii
- Ringer, A. I. See HARRIS, LASKER, and RINGER, 1926, 69, 713
- Ringer, Michael. The influence of insulin on phlorhizin diabetes, 1923-24, 58, 483
- and Rapport, David. Animal calorimetry. XXIII. The influence of the metabolism of the nucleic acids on heat production, 1923-24, 58, 475
- Rioch, David M. See NEUHAUSEN and RIOCH, 1923, 55, 353
- Robb, Elda I. See OKEY, 1925, 63, xxxiii
- See OKEY and ROBB, 1925, 65, 165
- Robinson, Charles Summers. The hydrogen ion concentration of human feces, 1922, 52, 445
- The use of the quinhydrone electrode for the determination of the hydron concentration of feces, 1925, 66, 811
- and Huffman, C. F. Studies on the chemical composition of beef blood. I. The concentrations of certain constituents in normal beef plasma, 1926, 67, 245
- and —. II. The composition of the blood of dams and calves immediately after calving, 1926, 67, 257
- See HUFFMAN and ROBINSON, 1926, 69, 101
- , Huffman, C. F., and Burt, K. L. The effect of the administration of parathyroid extract on normal calves, 1927, 73, 477
- Robinson, Guy C. A study of the acetone and butyl alcohol fermentation of various carbohydrates, 1922, 53, 125
- Robinson, Howard W. See CULLEN, AUSTIN, KORNBLUM, and ROBINSON, 1923, 56, 625
- See CULLEN and ROBINSON, 1923, 57, 533
- See AUSTIN, CULLEN, GRAM, and ROBINSON, 1924, 61, 829
- See AUSTIN, STADIE, and ROBINSON, 1925, 66, 505
- See CULLEN, KEELER, and ROBINSON, 1925, 66, 301
- See STADIE, AUSTIN, and ROBINSON, 1925, 66, 901
- Robison, S. C. See HJORT, ROBISON, and TENDICK, 1925, 65, 117
- Robschelt-Robbins, Frieda S. See VAN SLYKE and ROBSCHOLT-ROBBINS, 1927, 72, 39
- Robson, William. The metabolism of tryptophane. I. The synthesis of racemic Bz-3-methyltryptophane, 1924-25, 62, 495
- See HASTINGS, SENDROY, and ROBSON, 1925, 65, 381
- Rockwood, Elbert W., and Husa, W. J. The effect of certain nitrogen compounds upon the activity of urease, 1923, 55, v

Rockwood, Elbert W.—*continued.*

- The mechanism of the action of amino acid promoters upon enzymes, 1924, 59, xix

- and Keltch, Anna K. The promoter action of adrenalin on ptyalin, 1926, 67, lvi

- and Turner, Robert G. A previously undetected component of blood, 1927, 74, xvii

Rockwood, Reed. A study of the new Benedict method for the determination of blood sugar, 1926, 69, 187

Roe, Joseph H. The estimation of the hydrogen cyanide content of amygdalin by the aeration method, 1923-24, 58, 667

- The estimation of the total phosphorus and lipid phosphorus of the blood, 1926, 67, xv

- , Irish, Oliver J., and Boyd, James I. A study of the molybdic oxide colorimetric method for the estimation of the phosphorus compounds of the blood, 1926, 67, 579

- and Kahn, Bernard S. A colorimetric method for the estimation of blood calcium, 1926, 67, 585

- , Irish, Oliver J., and Boyd, James I. The preservation of blood for chemical analysis by the use of sodium fluoride, 1927, 75, 685

Rogers, Hobart. Exposure to light as a source of error in estimating uric acid by the Folin and Wu method, 1923, 55, 325

Rolf, Ida P. See LEVENE and ROLF, 1922, 51, 507

1922, 54, 91, 99
1923, 55, 743

- See LEVENE, ROLF, and SIMMS, 1923-24, 58, 859

- See LEVENE and ROLF, 1924, 60, 677
1924-25, 62, 759
1925, 65, 545
1926, 67, 659
1926, 68, 285
1927, 72, 587
1927, 74, 713

Ronzoni, Ethel. Ether anesthesia. II. Anesthetic concentration of ether for dogs, 1923, 57, 761

- See SHAFFER and RONZONI, 1923, 57, 741

- , Koechig, Irene, and Eaton, Emily P. Ether anesthesia. III. Rôle of lactic acid in the acidosis of ether anesthesia, 1924, 61, 465

- See BISHOP, BRIGGS, and RONZONI, 1925, 66, 77

- The effect of exercise on breathing in experimental alkalosis produced by ingested sodium bicarbonate, 1926, 67, xxv

- A comparison of glycolysis in muscle and blood *in vitro*, 1927, 74, xliii

- and Wallen-Lawrence, Zonja. Determination of lactic acid in blood, 1927, 74, 363

Root, Lucie E. See LEWIS and MCGINTY, 1922, 53, 349

Rose, Anton R., and Sherwin, Carl P. Surface tension and the detoxication of foreign organic substances, 1924, 59, p. 1

- , **Riesenfeld, Edwin A.**, and **Handleman, I.** Inorganic phosphorus in infant blood, 1925, 63, xlii
- , A micro method for determining nitrogen, 1925, 64, 253
- and **Exton, W. G.** Fractional precipitation of protein in urine, 1926, 67, xli
- and **Sherwin, Carl P.** Surface tension as a factor in detoxication, 1926, 68, 565
- , See **SHERWIN, SHIPLE**, and **ROSE**, 1927, 73, 607
- Rose, Embree R.** See **MAY** and **ROSE**, 1922, 54, 213
- Rose, Mary Swartz**, and **MacLeod, Grace.** Experiments on the utilization of the calcium of almonds by man, 1923, 55, xxiv
1923, 57, 305
- and —. Digestion experiments with the raw white of egg. II. The digestibility of unbeaten in comparison with beaten whites, 1923-24, 58, 369
- and —. Maintenance values for the proteins of milk, meat, bread and milk, and soy bean curd, 1925, 66, 847
- , The influence of prolonged administration of egg upon the hemoglobin content of children's blood, 1926, 67, xx
- , See **MACLEOD** and **ROSE**, 1926, 67, xix
- Rose, William C.**, and **Dimmitt, Pauline S.** The nephro-pathic action of mucic acid, 1923, 55, xxvii
- and **Cox, Gerald J.** The relation of arginine and histidine to growth, 1924, 59, xiv
1924, 61, 747
- and **Cook, Kenneth G.** The relation of histidine and arginine to creatine and purine metabolism, 1925, 63, xvii
1925, 64, 325
- , See **Cox** and **ROSE**, 1926, 67, iii
- and **Cox, Gerald J.** Further experiments on the alleged interchangeability of arginine and histidine in metabolism, 1926, 68, 217
- , See **Cox** and **ROSE**, 1926, 68, 769, 781
- and **Huddleston, Bernice T.** The availability of taurine as a supplementing agent in diets deficient in cystine, 1926, 69, 599
- , See **WESTERMAN** and **ROSE**, 1927, 74, lxvii
- , **Helmer, Oscar M.**, and **Chanutin, Alfred.** A modified method for the estimation of total creatinine in small amounts of tissues, 1927, 75, 543
- , See **WESTERMAN** and **ROSE**, 1927, 75, 533
- Rosenthal, Sanford M.** The liberation of adsorbed substances from the proteins. II. The effect of addition of sodium oleate to whole blood upon the non-protein nitrogen in blood filtrates, 1926, 70, 129
- Ross, Effie C.** See **STADIE** and **Ross**, 1925, 65, 735
1926, 68, 229

- Ross, G. S. See GAMBLE, ROSS, and TISDALL, 1923, 57, 633
- Ross, Helen. See GREENE, SANDIFORD, and ROSS, 1923-24, 58, 845
- Ross, J. H. A color test for chloroform and chloral hydrate, 1923-24, 58, 641.
- Roth, S. Clement. See UNDERHILL and ROTH, 1922, 54, 607
- Rothberg, Vera E., and Evans, Frank A. A modified Folin and Wu blood sugar method, 1923-24, 58, 443
- and —. Studies with the Folin and Wu blood sugar determination, 1923-24, 58, 435
- Rothrock, Henry A. See DUTCHER, CREIGHTON, and ROTHROCK, 1925, 66, 401
- Rothwell, Carmen S. See KUGELMASS and ROTHWELL, 1923-24, 58, 643
- . Direct precipitation of calcium in cow's milk, 1925, 65, 129
- . The determination of calcium in whole oxalated blood, 1927, 74, 257
- . Direct precipitation of calcium in human milk, 1927, 75, 23
- Rowe, Allan Winter. The metabolism of galactose. I. the threshold of tolerance in normal individuals, 1923, 55, vi
- . Studies on the metabolism in pregnancy. I. Changes in the tension of alveolar carbon dioxide, 1923, 55, xxviii
- , Alcott, M. D., and Mortimer, E. The metabolism in pregnancy. II. Changes in the basal metabolic rate, 1924, 59, xli
- and Wiener, B. S. The relative reducing power of some common sugars, 1925, 63, lxxiii
- . The metabolism of galactose. III. The influence on the tolerance of disturbed endocrine function, 1926, 67, xlviii
- and Proctor, Bernard Emerson. The composition of the residual nitrogen fraction in the urine, 1927, 74, iii
- Rufe, R. See MCCLENDON, 1926, 69, 733
- Rule, William. See WRIGHT and RULE, 1927, 75, 185
- Russell, Sidney. See MCCLENDON, RUSSELL, and TRACY, 1926, 70, 705
- Russell, Walter C., and Massengale, O. M. The transmission of ultra-violet light by a glass substitute, 1927, 74, lxxvi
- Rust, C. A. See McNALLY, EMBREE, and RUST, 1927, 74, 219
- Sackett, Guy E. Modification of Bloor's method for the determination of cholesterol in whole blood or blood serum, 1925, 64, 203
- Sahyun, Melville. See BLATHERWICK, MAXWELL, BERGER, and SAHYUN, 1926, 67, xxxiii

- . See BLATHERWICK, BISCHOFF, MAXWELL, BERGER, and SAHYUN,
1927, 72, 57
- . See BLATHERWICK, SAHYUN, and HILL,
1927, 75, 671
- Sallick, Myron A. See UNDERHILL and SALLICK,
1925, 63, 61
- Salmon, W. D. Vitamin B in the excreta of rats on a diet low in this factor,
1925, 65, 457
- . On the existence of two active factors in the vitamin B complex,
1927, 73, 483
- Salvesen, Harald A. The function of the parathyroids,
1923, 56, 443
- and Linder, Geoffrey C. Observations on the inorganic bases and phosphates in relation to the protein of blood and other body fluids in Bright's disease and in heart failure,
1923-24, 58, 617
- and — . The relation between calcium and protein of serum in tetany due to parathyroidectomy,
1923-24, 58, 635
- , Hastings, A. Baird, and McIntosh, J. F. Blood changes and clinical symptoms following oral administration of phosphates,
1924, 60, 311
- , — , and — . The effect of the administration of calcium salts on the inorganic composition of the blood,
1924, 60, 327
- Samet, Jerome. See GREENWALD, GROSS, and SAMET,
1924-25, 62, 401
- . See GREENWALD, SAMET, and GROSS,
1924-25, 62, 397
- Sandberg, Marta, and Brand, Erwin. On papain lipase,
1925, 64, 59
- . See BRAND and SANDBERG,
1926, 70, 381
- Sander, F. V. The preservation of blood for chemical analysis,
1923-24, 58, 1
- Sanders, Jason P. See HENDRIX and SANDERS,
1923-24, 58, 503
- Sanderson, Everett S. See HOWE and SANDERSON,
1924-25, 62, 767
- Sandiford, Irene. See BOOTHBY and SANDFORD,
1922, 54, 767, 783
1924, 59, xl
- . Estimation of the surface area of the fetus, and a graphic comparison of the various surface area formulas,
1924-25, 62, 323
- and Wheeler, Theodora. The basal metabolism before, during, and after pregnancy,
1924-25, 62, 329
- and Harrington, Ethel R. Preliminary report on the basal metabolism of one hundred fifty-seven normal school children between the ages of five and seventeen years,
1925, 63, xxxv
- , Sandiford, Kathleen, Deuel, Harry J. Jr., and Boothby, Walter M. The percentage variation of the nitrogen partition products in the urine as the result of a prolonged protein-free diet, together with the effect thereon of thyroxin and subsequent protein feeding,
1926, 67, xxiv

Sandiford, Irene.—*continued.*

— See DEUEL, SANDIFORD,
SANDIFORD, and BOOTHBY,

1926, 67, xxiii

— and Sandiford, Kathleen.
The effect of thyroxin on a
subject on high carbohydrate
diet, 1927, 74, li

Sandiford, Kathleen, Boothby,
Walter M., and Giffin, H. Z.

The amino acid nitrogen in
the blood and its possible
relation to the elevation of
the metabolism in myelog-
enous leucemia,

1923, 55, xxiii

— See GREENE, SANDIFORD,
and ROSS,

1923-24, 58, 845

— See DEUEL, SANDIFORD,
SANDIFORD, and BOOTHBY,

1926, 67, xxiii

— See SANDIFORD, SANDI-
FORD, DEUEL, and BOOTHBY,

1926, 67, xxiv

— See SANDIFORD and
SANDIFORD, 1927, 74, li

Sando, Charles E., and Bart-
lett, H. H. Pigments of the
Mendelian color types in
maize: isoquercitrin from
brown-husked maize,

1922, 54, 629

— Constituents of the wax-
like coating on the surface of
the apple,

1923, 56, 457

— and Lloyd, John Uri. The
isolation and identification of
rutin from the flowers of elder
(*Sambucus canadensis* L.),

1923-24, 58, 737

— Anthocyanin formation in
Helianthus annuus,

1925, 64, 71

— The coloring matter,
quercimeritrin, from the

double chrysanthemum-
flowered sunflower (*Helian-
thus annuus*),

1926, 68, 407

— Inositol from blackberry
(*Rubus argutus* Link) and
flowering dogwood (*Cornus
florida*), 1926, 68, 403

— See HANN and SANDO,
1926, 68, 399

Sargent, Florence C. See
COHN, MINOT, FULTON,
ULRICH, SARGENT, WEARE,
and MURPHY,

1927, 74, lxi

Sassaman, H. L. See BETHKE,
KENNARD, and SASSAMAN,

1927, 72, 695

Sato, A. See SHOHL and
SATO,

1923-24, 58, 235, 257

Sawyer, Frances. See AMBERG,
1926, 67, lx

Scheidegger, J. See LEVENE
and SCHEIDEGGER,

1924, 60, 179

Schilling, S. J. See SURE and
SCHILLING,

1927, 74, lxxiv

Schlutz, Frederic W., and
Ziegler, Mildred R. Some
spectroscopic observations on
cod liver oil. II. The ab-
sorption bands of cholesterol,
1926, 69, 415

—, —, and Morse, Minerva.
The influence of irradiation
upon oxidation products of
cholesterol,

1927, 73, 209

Schmidt, Carl L. A., and Clark,
Guy W. The fate of certain
sulfur compounds when fed
to the dog,

1922, 53, 193

— See DUNN and SCHMIDT,
1922, 53, 401

- and Foster, G. L. The separation of the hexone bases from certain protein hydrolysates by electrolysis, 1923, 55, xvi
- and Merrill, John A. The estimation of bile acids in icterus urine, 1923, 55, xx
- See FOSTER and SCHMIDT, 1923, 56, 545
- and Merrill, John A. The estimation of bile acids in urine, 1923-24, 58, 601
- See BRAKEFIELD and SCHMIDT, 1926, 67, 523
- See CHAPMAN, GREENBERG, and SCHMIDT, 1927, 72, 707
- See ANDREWS and SCHMIDT, 1927, 73, 651
- Schmidt, E. G. See PETERSON, FRED, and SCHMIDT, 1922, 54, 19
- 1924, 60, 627
- , Peterson, W. H., and Fred, E. B. The formation of l-leucic acid in the acetone-butyl alcohol fermentation, 1924, 61, 163
- Schmidt, Lola. See MITCHELL and SCHMIDT, 1926, 70, 471
- Schmitz, Henry Lenzen, and Glover, Eugene Chellis. Glycolysis in leucemic blood, 1927, 74, 761
- Schmitz, Herbert W. A simple method of estimating the salivary urea, 1923, 55, xliii
- See MOORHEAD, SCHMITZ, CUTTER, and MYERS, 1923, 55, xliii
- See MYERS, SCHMITZ, and BOOHER, 1923, 57, 209
- Schneider, Hans. See GILBERT, SCHNEIDER, and BOCK, 1926, 67, 629
- See BOCK, SCHNEIDER, and GILBERT, 1926, 69, 9
- Schneller, E. J., Brunquist, E. H., and Loevenhart, A. S. The effect of anoxemia on metabolism, 1923, 55, iii
- See BRUNQUIST, SCHNELLER, and LOEVENHART, 1924-25, 62, 93
- Schultz, E. W. A note on the technique of heart puncture in the dog, 1924, 60, 189
- Schulz, J. A. See FORBES, SCHULZ, HUNT, WINTER, and REMLER, 1922, 52, 281
- Schutte, Harry S. See ANDERSON and SCHUTTE, 1924, 61, 57
- Scott, D. A. See BEST and SCOTT, 1923, 57, 709
- See BEST, SMITH, and SCOTT, 1924, 59, xxx
- The action of trypsin on insulin, 1925, 63, 641
- A further investigation of the chemical properties of insulin, 1925, 65, 601
- Scott, Ernest L. See HOPPING and SCOTT, 1923, 55, xxxiii
- See DUGGAN and SCOTT, 1926, 67, 287
- What constitutes an adequate series of physiological observations? 1927, 73, 81
- Scott, H. See HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY, 1926, 67, 371

Scott, H.—*continued.*

— See HART, STEENBOCK,
KLETZIEN, and SCOTT,
1926-27, 71, 271

— See HART, STEENBOCK,
SCOTT, and HUMPHREY,
1926-27, 71, 263
1927, 73, 59

Scott, J. W. See COLLIP,
CLARK, and SCOTT,
1925, 63, 439

Scott, Norman D. See Co-
NANT and SCOTT,
1926, 68, 107
1926, 69, 575

Scott, W. O. See LAWSON and
SCOTT, 1925, 64, 23

Seibert, Florence B., and Long,
Esmond R. The interfering
effect of glycerol on the biuret
reaction, 1925, 64, 229

— A critical evaluation of
Hahn's quantitative method
for determining protein and
proteose, 1926, 70, 265

Seidell, Atherton. Concen-
trated antineuritic vitamin
prepared from brewers' yeast,
1926, 67, 593

Sell, Mariana T. See STEEN-
BOCK and SELL,
1922, 51, 63

— See STEENBOCK, SELL,
and JONES,
1923, 55, 411

— See STEENBOCK, SELL, and
NELSON, 1923, 55, 399

— See STEENBOCK, HART,
SELL, and JONES,
1923, 56, 375

— See STEENBOCK, SELL, and
JONES, 1923, 56, 345

— See STEENBOCK, SELL,
and NELSON,
1923, 56, 327

Sendroy, Julius, Jr. See

HASTINGS and SENDROY,
1924, 61, 695

— See HASTINGS, SENDROY,
MURRAY, and HEIDEL-
BERGER, 1924, 61, 317

— See HASTINGS and
SENDROY, 1925, 65, 445

— See HASTINGS, SENDROY,
and ROBSON,
1925, 65, 381

— See VAN SLYKE, HASTINGS,
MURRAY, and SENDROY,
1925, 65, 701

— and Hastings, A. Baird.
Studies of the solubility of
calcium salts. II. The sol-
ubility of tertiary calcium
phosphate in salt solutions
and biological fluids,
1926-27, 71, 783

— and —. III. The solubility
of calcium carbonate and
tertiary calcium phosphate
under various conditions,
1926-27, 71, 797

— See HASTINGS, MURRAY,
and SENDROY,
1926-27, 71, 723

— See VAN SLYKE and
SENDROY, 1927, 73, 127

Severy, Hazel W. The occur-
rence of copper and zinc in
certain marine animals,
1923, 55, 79

Sevringhaus, Elmer L. Post-
mortem acidity,
1923, 55, vii

— Postmortem acidity. I.
The acids formed in autolyz-
ing liver, 1923, 57, 181

— II. Phosphoric acid liber-
ation in liver autolysis,
1923, 57, 191

— Koehler, Alfred E., and
Bradley, H. C. Studies of
autolysis. IX. Hydrogen

- ion concentration in autolysis,
1923, 57, 163
- The utilization of margaric acid esters,
1924, 59, xlix
- The effect of fasting upon carbohydrate utilization,
1925, 63, xlviii
- The effect of ketosis on insulin action in the rabbit,
1926, 67, xliii
- Shackell, L. F.** Dye-protein aggregates. I. Congo fibrin,
1923, 55, xxxiii
1923, 56, 887
- Further work on dye-protein aggregates,
1924, 59, lv
- Shaffer, Philip A.** Antiketogenesis. IV. The ketogenic-antiketogenic balance in man and its significance in diabetes,
1922, 54, 399
- See **DOISY, SOMOGYI, and SHAFFER**,
1923, 55, xxxi
- and **Ronzoni, Ethel.** Ether anesthesia. I. The determination of ethyl ether in air and in blood, and its distribution ratio between blood and air,
1923, 57, 741
- See **SOMOGYI, DOISY, and SHAFFER**,
1924, 59, xxxiii
1924, 60, 31
- and **Friedemann, Theodore E.** Antiketogenesis. V. The ketolytic reaction; action of glycol aldehyde and of glyoxal,
1924, 61, 585
- See **FRIEDEMANN, CO-TONIO, and SHAFFER**,
1927, 73, 335
- On coupled reactions: The intermediate peroxides in the oxidation of ferrous salts,
1927, 74, xlvi
- Shambaugh, Noel F., and Lewis, Howard B.** The intermediary metabolism of the aromatic amino acids. Phenylalanine,
1926, 67, xxx
- Sharp, Paul Francis.** Extension of the Van Slyke table of factors for the conversion of nitrogen gas into milligrams of amino nitrogen,
1924, 60, 77
- and **McInerney, T. J.** The colorimetric determination of the hydrogen ion concentration of milk, whey, and cream,
1926, 70, 729
- and —. The relation of the hydrogen ion concentration to the titratable acidity of milk,
1927, 75, 177
- Sharp, Paul W.** See **CLARK and SHARP**,
1925, 66, 123
- Shaw, R. H.** See **SHERMAN and SHAW**,
1923, 56, 695
- Sheaff, Howard M.** A method for the quantitative estimation of minute amounts of gaseous oxygen and its application to respiratory air,
1922, 52, 35
- Shear, M. J., and Kramer, Benjamin.** Fractionation of irradiated cholesterol. I. Chemical observations,
1926-27, 71, 213
- See **KRAMER, KRAMER, SHELLING, and SHEAR**,
1926-27, 71, 699
- See **KRAMER, SHEAR, and SHELLING**,
1926-27, 71, 221
- and **Kramer, Benjamin.** The inorganic composition of bone. I. Methods,
1927, 74, ix

- Shelling, David H.** See **KRAMER, KRAMER, SHELLING, and SHEAR**, 1926-27, 71, 699
- See **KRAMER, SHEAR, and SHELLING**, 1926-27, 71, 221
- Sheppard, Fay.** See **EVERETT, SHOEMAKER, and SHEPPARD**, 1927, 74, 739
- Sherman, Elizabeth.** See **HESS, WEINSTOCK, and SHERMAN**, 1925, 66, 145
1926, 67, 413
1926, 70, 123
- See **HESS and SHERMAN**, 1927, 73, 145
- See **HESS, BERG, and SHERMAN**, 1927, 74, xxvii
- Sherman, H. C., and Crocker, Josephine.** Growth and reproduction upon simplified food supply. III. The efficiency of growth as influenced by the proportion of milk in the diet, 1922, 53, 49
- and **Hawley, Edith.** Calcium and phosphorus metabolism in childhood, 1922, 53, 375
- and **Muhlfeld, Marie.** Growth and reproduction upon simplified food supply. II. Influence of food upon mother and young during the lactation period, 1922, 53, 41
- and **Campbell, H. L.** Growth and reproduction upon simplified food supply. IV, 1924, 59, xlv
- and **MacLeod, F. L.** Fat-soluble vitamin in adult nutrition, 1924, 59, xlv
- and **Campbell, H. L.** Growth and reproduction upon simplified food supply. IV. Improvement in nutrition resulting from an increased proportion of milk in the diet, 1924, 60, 5
- and **MacLeod, F. L.** The calcium content of the body in relation to age, growth, and food, 1925, 63, xxx
- and **Merrill, Alice Thompson.** Cystine in the nutrition of the growing rat, 1925, 63, 331
- and **MacLeod, F. L.** The calcium content of the body in relation to age, growth, and food, 1925, 64, 429
- and **Woods, Ella.** The determination of cystine by means of feeding experiments, 1925, 66, 29
- and **Quinn, E. J.** The phosphorus content of the body in relation to age, growth, and food, 1926, 67, 667, xxxiii
- and **Cammack, M. L.** A quantitative study of the storage of vitamin A, 1926, 68, 69
- and **Burton, G. W.** Effect of hydrogen ion concentration upon the rate of destruction of vitamin B upon heating, 1926, 70, 639
- and **Hessler, M. C.** Quantitative differentiation of vitamins A and D. I, 1927, 73, 113
- and **Gloy, O. H. M.** Vitamin B determination and requirement with special reference to protein intake, 1927, 74, 117
- and **MacArthur, E. H.** A quantitative study of the

- determination of vitamin B,
1927, 74, 107
- and Axtmayer, J. H. A quantitative study of the problem of the multiple nature of vitamin B,
1927, 75, 207
- Sherman, J. M., and Shaw, R. H. The propionic acid fermentation of lactose,
1923, 56, 695
- Sherwin, Carl P. See SHIPLE and SHERWIN,
1922, 53, 463
- See CROWDLE and SHERWIN,
1923, 55, 15, iv, 365
- See SHIPLE and SHERWIN,
1923, 55, 671
- See CERECEDO and SHERWIN,
1923-24, 58, 215
- See MULDOON, SHIPLE, and SHERWIN,
1924, 59, 675
- See ROSE and SHERWIN,
1924, 59, p. 1
- See SHIPLE, MULDOON, and SHERWIN,
1924, 60, 59
- See CERECEDO and SHERWIN,
1924-25, 62, 217
- See MUENZEN, CERECEDO, and SHERWIN,
1925, 63, xvi
- See NOVELLO, HARROW, and SHERWIN,
1926, 67, liy
- See NOVELLO, MIRIAM, and SHERWIN,
1926, 67, 555
- See MUENZEN, CERECEDO, and SHERWIN,
1926, 68, 503
- See ROSE and SHERWIN,
1926, 68, 565
- See ADELIN, CERECEDO, and SHERWIN,
1926, 70, 461
- See HARROW and SHERWIN,
1926, 70, 683
- See MIRIAM, WOLF, and SHERWIN,
1926-27, 71, 249, 695
- , Shipley, George J., and Rose, Anton R. Sulfur metabolism,
1927, 73, 607
- Sherwood, David W. See JACKSON, SHERWOOD, and MOORE,
1927, 74, 231
- Shipley, George J., and Sherwin, Carl P. The fate of some of the phenylacetylated amino acids in the animal organism,
1922, 53, 463
- and —. Some derivatives of cystine and cysteine,
1923, 55, 671
- See MULDOON, SHIPLE, and SHERWIN,
1924, 59, 675
- , Muldoon, Joseph A., and Sherwin, Carl P. The formation of ethereal sulfates,
1924, 60, 59
- See SHERWIN, SHIPLE, and ROSE,
1927, 73, 607
- Shipley, P. G. See McCOLLUM, SIMMONDS, SHIPLEY, and PARK,
1922, 51, 41
- See McCOLLUM, SIMMONDS, BECKER, and SHIPLEY,
1922, 53, 293
- , Kinney, Ethel May, and McCollum, E. V. Studies on experimental rickets. XXIV. The effect of certain extracts of plant tissues on florid rickets,
1924, 59, 165

Shipley, P. G.—*continued.*

—, —, and —. XXV. A study of the antirachitic effect of certain oils,

1924, 59, 177

— See McCOLLUM, SIMMONDS, BECKER, and SHIPLEY,

1925, 65, 97

1926, 70, 437

Shoemaker, Harold A. See EVERETT and SHOEMAKER,

1927, 74, vi

— See EVERETT, SHOEMAKER, and SHEPPARD,

1927, 74, 739

Shohl, Alfred T. A trap for the Van Slyke gas analysis apparatus,

1923, 56, 125

— and Sato, A. Acid-base metabolism. I. Determination of base balance,

1923–24, 58, 235

— and —. II. Mineral metabolism,

1923–24, 58, 257

— See KUGELMASS and SHOHL,

1923–24, 58, 649

— and McQuarrie, Irvine. A method for the determination of the pH of cerebrospinal fluid,

1925, 63, xii

— See McQUARRIE and SHOHL,

1925, 66, 367

— and Karelitz, Samuel. Carbon dioxide tension of cerebrospinal fluid,

1926, 67, xxvii

1926–27, 71, 119

— See KARELITZ and SHOHL,

1927, 73, 655, 665

— and Bennett, Helen B. A new micro method for the determination of potassium in physiological material,

1927. 74. iv

— and —. Rickets in rats. III. Metabolism of calcium and phosphorus of rats on restricted food intakes,

1927, 74, 247

Shonle, Horace A., and Waldo, John H. Some chemical reactions of the substance containing insulin,

1923–24, 58, 731

— and —. The destructive action of acids, alkalies, and enzymes on insulin,

1925, 66, 467

Shope, Richard E. Sugar and cholesterol in the blood serum as related to fasting,

1927, 75, 101

Short, James J., and Gellis, Archie D. Blood chloride methods,

1927, 73, 219

Shriner, R. L. See ANDERSON, NABENHAUER, and SHRINER,

1926–27, 71, 389

— See ANDERSON and SHRINER,

1926–27, 71, 401

Silverman, D. N. See HUME, DENIS, SILVERMAN, and IRWIN,

1924, 60, 633

Simmonds, Nina. See McCOLLUM, SIMMONDS, SHIPLEY, and PARK,

1922, 51, 41

— See LEVINE, McCOLLUM, and SIMMONDS,

1922, 53, 7

— See McCOLLUM, SIMMONDS, and BECKER,

1922, 53, 313

— See McCOLLUM, SIMMONDS, BECKER, and SHIPLEY,

1922, 53, 293

— See ORTON, McCOLLUM, and SIMMONDS,

1922, 53, 1

— See McCOLLUM, SIMMONDS, BECKER, and SHIPLEY,

1922, 54, 249

- See POWERS, PARK, and SIMMONDS, 1923, 55, 575
- See McCOLLUM, SIMMONDS, and BECKER, 1925, 63, 547
- See McCOLLUM, SIMMONDS, BECKER, and BUNTING, 1925, 63, 553
- See McCOLLUM, SIMMONDS, and BECKER, 1925, 64, 161
- See McCOLLUM, SIMMONDS, BECKER, and SHIPLEY, 1925, 65, 97
- 1926, 70, 437
- , BECKER, J. Ernestine, and McCollum, E. V. The relation of vitamin E to iron assimilation, 1927, 74, lxxviii
- Simms, Henry S. See LEVENE and SIMMS, 1922, 51, 285
- 1923, 55, 801
- See LEVENE, ROLF, and SIMMS, 1923-24, 58, 859
- See LEVENE, SIMMS, and PFALTZ, 1924, 61, 445
- See LEVENE and SIMMS, 1924-25, 62, 711
- 1925, 63, 351
- 1925, 65, 31, 519
- 1926, 68, 737
- and Levene, P. A. Graphical interpretation of electro-metric titration data by use of comparison curves, 1926, 70, 319
- See LEVENE, BASS, and SIMMS, 1926, 70, 229
- See LEVENE and SIMMS, 1926, 70, 327
- See LEVENE, SIMMS, and BASS, 1926, 70, 243
- See LEVENE, SIMMS, and PFALTZ, 1926, 70, 253
- Simpson, George Eric. The antiketogenic action of glucose, 1923, 55, xxiv
- Diurnal variations in the rate of urine excretion for two hour intervals: some associated factors, 1924, 59, 107
- The effect of waking on urinary chlorides and pH; short interval urines during the second day of fasting, 1925, 63, xxxii
- The effect of sleep on urinary chlorides and pH, 1926, 67, 505
- Sinclair, R. G. See BLOOR and SINCLAIR, 1927, 74, iv
- Sjollema, B., and van der Zande, J. E. On abnormal milk and on the influence of an aseptic udder inflammation on the composition of the milk, 1922, 53, 513
- Studies in inorganic metabolism. I. The influence of cod liver oil upon calcium and phosphorus metabolism, 1923, 57, 255
- II. The influence of crude fiber and of protein upon calcium and phosphorus metabolism, 1923, 57, 271
- Sjorslev, Niels. On the sulfuric acid reaction of butter fat and the disappearance of the reaction from vitamin A-containing butter fat through the action of oxidized fat, 1924-25, 62, 487
- Smith, Arthur H., and Carey Elizabeth. Growth on diets high in carbohydrate and high in fat, 1923-24, 58, 425

Smith, Arthur H.—*continued.*

— and **Anderson, William E.** Postsorbutic nutrition in the guinea pig,

1924, 59, viii

— . See **COWGILL, DEUEL, and SMITH,** 1924, 59, xi

— . See **ANDERSON and SMITH,** 1924, 61, 181

— . A protein in the edible portion of orange. Preliminary paper,

1925, 63, 71

— . See **COWGILL, SMITH, and BEARD,** 1925, 63, xxiii

— , **Cowgill, George R., and Croll, Hilda M.** A note on the technique for studying vitamin B, 1925, 66, 15

— and **Levine, Harold.** Ketosis in the rat,

1926, 67, vi

— . See **McKEE and SMITH,** 1926, 70, 273

— . See **LEVINE and SMITH,** 1927, 72, 223

1927, 75, 1

Smith, Edith A. See **WANG, STROUSE, and SMITH,**

1927, 74, xxxvii

Smith, H. Gregg. The biochemical oxidation of fatty acids, 1926, 67, xxvii

Smith, H. Monmouth, and Doolittle, Dortha Bailey. Energy expenditure of women during horizontal walking at different speeds,

1925, 65, 665

Smith, Homer A. See **CLOWES and SMITH,**

1923, 55, xix

Smith, J. B. See **GILBERT and SMITH,** 1927, 74, 223

Smith, James H. C., and Young, William G. Modifications of Rast's micro method

for molecular weight determinations,

1927, 75, 289

Smith, Lawrence Weld. The experimental feeding of dried breast milk,

1924, 61, 625

Smith, Millard. The minimum endogenous nitrogen metabolism, 1926, 68, 15

Smith, Philip E. See **FOSTER and SMITH,**

1926, 67, xxix

Smith, Ralph G. See **BEST, SMITH, and SCOTT,**

1924, 59, xxx

— . See **HUNTER and SMITH,** 1924-25, 62, 649

Smits, B. L. See **HUGHES, LATSHAW, and SMITS,**

1927, 74, xxx

Smyth, Francis S., and Whipple, G. H. Bile salt metabolism.

I. Influence of chloroform and phosphorus on bile fistula dogs, 1924, 59, 623

— and — . II. Proteose and x-ray intoxication. Thyroid and thyroxin,

1924, 59, 637

— and — . III. Gelatin, fish, yeast, cod liver, and meat extracts, 1924, 59, 647

— and — . IV. Negative influence of drugs, atropine, pilocarpine, phlorhizin, quinine, etc., 1924, 59, 655

Snyder, Franklin F. See **HOSKINS and SNYDER,**

1927, 75, 147

Sobotka, Harry. See **LEVENE and SOBOTKA,**

1925, 65, 463, 469, 551

1926, 67, 759, 771

— . The oxidation of methylated glucoses,

1926, 69, 267

- . See LEVENE and SOBOTKA,
1926-27, 71, 181, 471
- Soderstrom, G. F. See ATKIN-
SON, RAPPORT, and LUSK,
1922, 53, 155
- . See RICHARDSON and
MASON, 1923, 57, 587
- . See RICHARDSON and
LADD, 1923-24, 58, 931
- . See LADD and RICHARD-
SON, 1925, 63, 681
- . See RICHARDSON and
LEVINE, 1925, 63, 465
1925, 66, 161
- . See RICHARDSON,
1926, 67, 397
- . See RICHARDSON, LEVINE,
and DU BOIS,
1926, 67, 737
- Sohm, Herbert A. See LEVINE
and SOHM,
1924, 59, xlviii
- Sokhey, S. S. See FISKE and
SOKHEY, 1925, 63, 309
- Sollmann, Torald. See VON
OETTINGEN and SOLLMANN,
1927, 72, 635
- Somogyi, Michael. See DOISY,
SOMOGYI, and SHAFFER,
1923, 55, xxxi
- , Doisy, Edward A., and
Shaffer, Philip A. On the
preparation and properties of
insulin, 1924, 59, xxxiii
- , — , and — . On the pre-
paration of insulin,
1924, 60, 31
- . See FRIEDEMANN, SOMO-
GYI, and WEBB,
1926, 67, xlv
- . Notes on sugar determina-
tion, 1926, 70, 599
- . Reducing non-sugars and
true sugar in human blood,
1927, 75, 33
- Sottery, C. Theodore. See
NELSON and SOTTERY,
1924-25, 62, 139
- Speakman, Horace B. Molec-
ular configuration in the
sugars and acid production
by *Bacillus granulobacter*
pectinovorum,
1923-24, 58, 395
- . The biochemistry of ace-
tone formation from sugars
by *Bacillus acetoethylicum*,
1925, 64, 41
- . The physiological signifi-
cance of bacterial deamina-
tion, 1926, 67, xvii
- . The physiological signifi-
cance of deamination in rela-
tion to glucose oxidation,
1926, 70, 135
- Sperry, Warren M., and Bloor,
W. R. Fat excretion. II.
The quantitative relations of
the fecal lipids,
1924, 60, 261
- . The fatty acids excreted
by dogs on a fat-free diet,
1925, 63, xlvii
- . Lipid excretion by dogs
on a lipid-free diet,
1926, 67, xxviii
- . Lipid excretion. III.
Further studies of the quan-
titative relations of the fecal
lipids, 1926, 68, 357
- . IV. A study of the rela-
tionship of the bile to the
fecal lipids with special refer-
ence to certain problems of
sterol metabolism,
1926-27, 71, 351
- Spoehr, H. A., and Wilbur, Paul
C. The effect of disodium
phosphate on *d*-glucose and
d-fructose, 1926, 69, 421
- Stadie, William C., and Martin,
Kirby A. The thermody-
namic relations of the
oxygen- and base-combining
properties of blood,
1924, 60, 191

- Stadie, William C.—*continued*.
 — and Ross, Effie C. A micro method for the determination of base in blood and serum and other biological materials, 1925, 65, 735
- , Austin, J. Harold, and Robinson, Howard W. The effect of temperature on the acid-base-protein equilibrium and its influence on the carbon dioxide absorption curve of whole blood, true and separated serum, 1925, 66, 901
- See AUSTIN, STADIE, and ROBINSON, 1925, 66, 505
- and Ross, Effie C. Studies on the oxygen-, acid-, and base-combining properties of blood. II. A rapid method for the preparation of crystalline isoelectric hemoglobin by the electrodialysis of red blood cells, 1926, 68, 229
- and Hawes, Effie Ross. The apparent first dissociation constant, pK_1' of carbonic acid, the activity coefficient of the bicarbonate ion in solutions of hemoglobin, methemoglobin, cyanhemoglobin, and nitric oxide hemoglobin at varying ionic strengths and the extension of the Debye-Hückel theory of ionic interaction to hemoglobin, bicarbonate-sodium chloride systems, 1927, 74, xxxi
- Starr, Henry E. Studies of human mixed saliva. I. The determination of the hydrogen ion concentration of human mixed saliva, 1922, 54, 43
- II. Variations in the hydrogen ion concentration of human mixed saliva, 1922, 54, 55
- Starr, Isaac, Jr., and Gamble, Clarence James. A method for the determination of minute amounts of ethyl iodide in air, water, and blood by means of its reaction with silver nitrate; and experiments bearing on the determination of blood flow by means of ethyl iodide, 1926-27, 71, 509
- Stearns, Genevieve. See DANIELS and STEARNS, 1924, 61, 225
- Steenbock, H., and Sell, Mariana T. Fat-soluble vitamin. X. Further observations on the occurrence of the fat-soluble vitamin with yellow plant pigments, 1922, 51, 63
- See HART, HALPIN, and STEENBOCK, 1922, 52, 379
- See HART, STEENBOCK, and LEPKOVSKY, 1922, 52, 241
- See HART, STEENBOCK, HOPPERT, and HUMPHREY, 1922, 53, 21
- See HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY, 1922, 54, 75
- , Jones, James H., and Hart, E. B. Stability of vitamin in cod liver oil, 1923, 55, xxvi
- , Sell, Mariana T., and Jones, James H. Vitamin B. II. Storage of vitamin B by the rat, 1923, 55, 411
- , —, and Nelson, E. M. Vitamin B. I. A modified

- technique in the use of the rat for determinations of vitamin B,
1923, 55, 399
- , Hart, E. B., Sell, Mariana T., and Jones, James H. The availability of calcium salts,
1923, 56, 375
- and Nelson, E. M. Fat-soluble vitamin. XIII. Light in its relation to ophthalmia and growth,
1923, 56, 355
- , Sell, Mariana T., and Jones, James H. Fat-soluble vitamin. XII. The fat-soluble vitamin content of millets,
1923, 56, 345
- , —, and Nelson, E. M. Fat-soluble vitamin. XI. Storage of the fat-soluble vitamin,
1923, 56, 327
- , Hart, E. B., Jones, James H., and Black, Archie. Fat-soluble vitamins. XIV. The inorganic phosphorus and calcium of the blood used as criteria in the demonstration of the existence of a specific antirachitic vitamin,
1923-24, 58, 59
- , Jones, James H., and Hart, E. B. Fat-soluble vitamins. XVI. Stability of the antirachitic vitamin to saponification,
1923-24, 58, 383
- . See BETHKE and STEENBOCK,
1923-24, 58, 105
- . See BETHKE, STEENBOCK, and NELSON,
1923-24, 58, 71
- . See HART, STEENBOCK, HOPPERT, and HUMPHREY,
1923-24, 58, 43
- . See HART, STEENBOCK, LEPKOVSKY, and HALPIN,
1923-24, 58, 33
- , Nelson, Mariana T., and Black, Archie. Determinations of vitamin A,
1924, 59, ix
- . See HART, STEENBOCK, LEPKOVSKY, and HALPIN,
1924, 60, 341
- and Black, Archie. Fat-soluble vitamins. XVII. The induction of growth-promoting and calcifying properties in a ration by exposure to ultra-violet light,
1924, 61, 405
- , Hart, E. B., and Jones, James H. Fat-soluble vitamins. XVIII. Sunlight in its relation to pork production on certain restricted rations,
1924, 61, 775
- and Nelson, Mariana T. Fat-soluble vitamins. XIX. The induction of calcifying properties in a rickets-producing ration by radiant energy,
1924-25, 62, 209
- , —, and Black, Archie. Fat-soluble vitamins. XX. A modified technique for the determination of vitamin A,
1924-25, 62, 275
- . See HART, STEENBOCK, and ELVEHJEM,
1924-25, 62, 117
- . See HART, STEENBOCK, HUMPHREY, and HULCE,
1924-25, 62, 315
- . See NELSON and STEENBOCK,
1924-25, 62, 575
- , Black, Archie, Nelson, E. M., Nelson, Mariana T., and Hoppert, C. A. Antirachitic activation by light,

Steenbock, H.—*continued*.

- and —. Fat-soluble vitamins. XXIII. The induction of growth-promoting and calcifying properties in fats and their unsaponifiable constituents by exposure to light, 1925, 64, 263
- See NELSON and STEENBOCK, 1925, 64, 299
- See HART, STEENBOCK, ELVEHJEM, and WADDELL, 1925, 65, 67
- See HART, STEENBOCK, and LEPKOVSKY, 1925, 65, 571
- See HART, STEENBOCK, LEPKOVSKY, KLETZIEN, HALPIN, and JOHNSON, 1925, 65, 579
- , Hart, E. B., Elvehjem, C. A., and Kletzien, S. W. F. Dietary factors influencing calcium assimilation. VI. The antirachitic properties of hays as related to climatic conditions with some observations on the effect of irradiation with ultra-violet light, 1925, 66, 425
- , —, Hoppert, C. A., and Black, Archie. Fat-soluble vitamins. XXVI. The antirachitic property of milk and its increase by direct irradiation and by irradiation of the animal, 1925, 66, 441
- See HART, STEENBOCK, LEPKOVSKY, and HALPIN, 1925, 66, 813
- See HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY, 1926, 67, 371
- See HART, STEENBOCK, KLETZIEN, and SCOTT, 1926-27, 71, 271
- See HART, STEENBOCK, SCOTT, and HUMPHREY, 1926-27, 71, 263
- and Coward, Katharine H. Fat-soluble vitamins. XXVII. The quantitative determination of vitamin A, 1927, 72, 765
- See HART, STEENBOCK, SCOTT, and HUMPHREY, 1927, 73, 59
- , Hart, E. B., Rüsing, Blanche, and Hoppert, C. A. Variations in the antirachitic effect of ultra-violet irradiation, 1927, 74, lxxiii
- Stehle, Raymond L. Note on the gasometric determination of urea, 1922, 51, 89
- , Bourne, Wesley, and Barbour, Henry G. Effects of ether anesthesia alone or preceded by morphine upon the alkali metabolism of the dog, 1922, 53, 341
- and —. Concerning the mechanism of acidosis in anesthesia, 1924, 60, 17
- Steiger, Robert E. See LEVENE, BASS, STEIGER, and BENCOWITZ, 1927, 72, 815
- See LEVENE and STEIGER, 1927, 74, 689
- Steinle, John Vernon, and Kahlenberg, Louis. A new method for the identification and estimation of cholesterol and certain other compounds, 1926, 67, 425
- Stenström, Wilhelm, and Reinhard, Melvin. Ultra-violet absorption spectra of blood serum and certain amino acids, 1925, 66, 819
- and —. Some experiences

- with production of colloidal lead, 1926, 69, 607
- Stern, Hans T. The colorimetric pH test of water or unbuffered solutions, 1925, 65, 677
- Stevenson, H. C. See EDDY, HEFT, and STEVENSON, 1922, 51, 83
- Stewart, Harold J. The oxygen and carbon dioxide contents of the arterial and mixed venous blood in normal intact dogs, 1924-25, 62, 641
- Stiebeling, Hazel. See ROSE and MACLEOD, 1925, 66, 847
- Stiles, H. R., Peterson, W. H., and Fred, E. B. Fermentation products of certain mannitol-forming bacteria, 1925, 64, 643
- Stimson, Barbara B. Changes in the oxygen capacity of the blood pigment of rabbits following the administration of nitrobenzene, 1927, 75, 741
- Changes in the oxygen capacity of the blood pigment of rabbits following splenectomy, 1927, 75, 95
- Stoddard, James L., and Adair, Gilbert S. The refractometric determination of hemoglobin, 1923, 57, 437
- See HENDERSON, BOCK, FIELD, and STODDARD, 1924, 59, 379
- Activity in protein solutions. I. Inert gases. The question of hydration, 1926-27, 71, 629
- See DILL, VAN CAULAERT, HURKTHAL, STODDARD, BOCK, and HENDERSON, 1927, 73, 251
- An electrolytic method for the determination of sodium plus potassium, 1927, 74, 677
- Stokes, Arthur M. See CLOUGH, STOKES, GIBBS, STONE, and MURLIN, 1923, 55, xxx
- See MURLIN, CLOUGH, GIBBS, and STOKES, 1923, 56, 253
- Stokes, Joseph, Jr. See KAHN and STOKES, 1926, 69, 75
- Stone, Harriet. See ROSE and MACLEOD, 1925, 66, 847
- Stone, Neil C. See CLOUGH, STOKES, GIBBS, STONE, and MURLIN, 1923, 55, xxx
- See MATTELL and STONE, 1923, 55, 443
- Strouse, Solomon. See WANG, STROUSE, and SMITH, 1927, 74, xxxvii
- Subbarow, Yellapragada. See FISKE and SUBBAROW, 1925, 66, 375
- 1927, 74, xxii
- Sugiura, Kanematsu. See FALK, NOYES, and SUGIURA, 1922, 53, 75
- and Benedict, Stanley R. A study of the adequacy of certain synthetic diets for the nutrition of pigeons, 1923, 55, 33
- See NOYES, SUGIURA, and FALK, 1923, 55, 653
- Noyes, Helen Miller, and Falk, K. George. Studies on enzyme action. XXIV. The kinetics of the ester-hydrolyzing actions of some tissue and tumor extracts, 1923, 56, 903

- Sugiura, Kanematsu.**—*continued.*
- See FALK, NOYES, and SUGIURA, 1924, 59, 183, 213, 225
1924-25, 62, 697
 - Sullivan, M. X.** A new distinctive test for cysteine, 1924, 59, p. 1
 - See CLARK, COHEN, GIBBS, and SULLIVAN, 1924, 59, xxi
 - Some applications of the new cysteine reaction, 1925, 63, xi
 - Differentiating reactions for cysteine, cystine, and glutathione, 1926, 67, xi
 - The colorimetric estimation of cystine in casein by means of the naphthoquinone cysteine reaction, 1927, 74, xiv
 - Sumner, James B., and Hubbard, Roger S.** The determination of the titratable alkali of the blood with dinitrosalicylic acid, 1923, 56, 701
 - , **Graham, Viola A., and Noback, Charles V.** Urease and the jack bean proteins, 1924, 59, xx
 - The estimation of sugar in diabetic urine, using dinitrosalicylic acid, 1924-25, 62, 287
 - and **Graham, Viola A.** The purification of jack bean urease, 1925, 63, xliii
 - and —. The globulins of the jack bean (*Canavalia ensiformis*). II. The content of cystine, tyrosine, and tryptophane, 1925, 64, 257
 - A more specific reagent for the determination of sugar in urine, 1925, 65, 393
 - The precipitation of urease by lead acetate, 1926, 67, viii
 - Is cyanic acid an intermediate product of the action of urease upon urea? 1926, 68, 101
 - The isolation and crystallization of the enzyme urease. Preliminary paper, 1926, 69, 435
 - Note. The recrystallization of urease, 1926, 70, 97
 - Some properties of crystallized urease, 1927, 74, lxi
 - Sunderman, F. William.** See AUSTIN, SUNDERMAN, and CAMACK, 1926, 70, 427
1927, 72, 677
 - Sundstroem, E. S.** Some observations on the interrelation between the functional levels of the animal body and the external cooling power, 1925, 63, xli
 - See FOSTER and SUNDESTROEM, 1926, 69, 565
 - Supniewski, J. V.** The influence of insulin on the acetaldehyde formation in the body of animals, 1926, 70, 13
 - , **Ishikawa, Y., and Geiling, E. M. K.** The effect of insulin injected into the cerebrospinal fluid, 1927, 74, 241
 - Supplee, G. C.** See HESS, SUPPLEE, and BELLIS, 1923, 57, 725
 - and **Dow, Odessa D.** Reproductive potency of dry

- milk as affected by oxidation,
1925, 63, 103
- and —. The antirachitic
and calcifying properties of
summer- and winter-produced
dry milk, irradiated and non-
irradiated, 1927, 73, 617
- and —. Vitamin A potency
of irradiated milk,
1927, 75, 227
- Sure, Barnett.** Dietary re-
quirements for reproduction.
I. The nutritive value of milk
proteins from the standpoint
of reproduction,
1923-24, 58, 681
- II. The existence of a
specific vitamin for reproduc-
tion, 1923-24, 58, 693
- Amino acids in nutrition.
VIII. Proline is indispensable
for growth,
1924, 59, xv, 577
- IX. The rôle of alanine and
indole in the synthesis of
tryptophane by the animal
organism, 1924, 59, xvi
- Dietary requirements for
reproduction. III. The ex-
istence of the reproductive
dietary complex (vitamin E)
in the ethereal extracts of
yellow corn, wheat embryo,
and hemp-seed,
1924-25, 62, 371
- IV. Positive evidence for
the existence of a reproduc-
tive dietary complex (vita-
min E) soluble in ether,
benzene, and acetone,
1925, 63, xxvi
- IV. Solubility of the re-
productive dietary complex
(vitamin E) in various or-
ganic solvents,
1925, 63, 211
- V. The distribution of the
reproductive dietary complex
(vitamin E) in various vege-
table oils,
1925, 63, lxxiv
- The rôle of vitamin E in
lactation, 1926, 67, xlix
- Dietary requirements for
reproduction. V. The rôle
of various vegetable and fruit
oils in fertility and lactation,
1926, 69, 29
- VI. Types of sterility pro-
duced on a skimmed milk
powder reproduction-defi-
cient diet, 1926, 69, 41
- VII. The existence of a
lactation-promoting factor
in the unsaponifiable matter
from wheat oil,
1926, 69, 53
- VIII. Further studies of
a skimmed milk powder
reproduction-deficient diet,
1927, 74, 37
- IX. Cod liver oil versus
wheat oil as sources of
vitamin E, 1927, 74, 45
- X. Vitamin B require-
ments for normal lactation,
1927, 74, 55
- XI. The potency of butter
fat in vitamin E,
1927, 74, 71
- and Schilling, S.J. Vitamin
requirements of the nursing
mother. I. The production
of beriberi in the nursing
young of the albino rat on
diets entirely satisfactory for
growth, 1927, 74, lxxiv
- Svedberg, Andrea.** See FOLIN
and SVEDBERG,
1926, 70, 405
- Swain, Robert E., and Rake-
straw, Norris W.** Further
observations on the chemical
composition of the body
fluids of the sea-lion,
1923, 55, iv

- Swanson, W. W. The effect of sodium benzoate ingestion upon the composition of the blood and urine with especial reference to the possible synthesis of glycine in the body. Preliminary paper, 1924-25, 62, 565
- Sweet, Joshua E. See HENDRIX and SWEET, 1923, 55, 161
- See DEUEL, MILHORAT, and SWEET, 1927, 74, xl
- Swift, Raymond W. See FORBES and SWIFT, 1926, 67, 517
- Swoboda, Frederick K. Nitrogen nutrition of yeast, 1922, 52, 91
- Szczypinski, Adam. See ROCKWOOD, 1926, 69, 187
- Taggart, Grace C. See CSONKA and TAGGART, 1922, 54, 1
- Tashiro, Shiro. A colorimetric method of determination of bile salts in the blood, 1925, 63, lxiv
- Tatum, A. L., and Atkinson, A. J. Is asphyxia the cause of drug hyperglycemias? 1922, 54, 331
- Taylor, A. C. See OLMSTED and TAYLOR, 1924, 59, xxx
- Taylor, F. A. See LEVENE and TAYLOR, 1922, 52, 227
1922, 54, 351
1924, 59, 905
- See LEVENE, TAYLOR, and HALLER, 1924, 61, 157
- Taylor, G. E. See ROBINSON, and HUFFMAN, 1926, 67, 257
- Teller, Ida. See JONAS, MILLER, and TELLER, 1925, 63, lv
- Tendick, F. H. See HJORT, ROBISON, and TENDICK, 1925, 65, 117
- See HJORT, NORTH, and TENDICK, 1926, 67, xxxvi
- Terrill, Edwin H. On the colorimetric determination of hemoglobin with especial reference to the production of stable standards, 1922, 53, 179
- Theis, Ruth C., and Benedict, Stanley R. The determination of phenols in the blood, 1924, 61, 67
- See BENEDICT and THEIS, 1924, 61, 63
- Thom, Charles. See MAY, HERRICK, THOM, and CHURCH, 1927, 75, 417
- Thomas, Adrian. Studies on the absorption of metallic salts by fish in their natural habitat. II. The absorption of nickel by *Fundulus heteroclitus*, 1923-24, 58, 671
- Thomas, Grace. See MORGULIS, 1925, 66, 353
- Thompson, H. C. See WILSON, LONG, THOMPSON, and THURLOW, 1925, 65, 755
- Thompson, J. W. See VOEGTLIN, DUNN, and THOMPSON, 1924, 59, xxxvii
- See VOEGTLIN, THOMPSON, and DUNN, 1925, 64, 639
- and Voegtlin, Carl. Glutathione content of normal animals, 1926, 70, 793

- See VOEGTLIN and THOMPSON, 1926, 70, 801
- Thurlow, Sylva. See WILSON, LONG, THOMPSON, and THURLOW, 1925, 65, 755
- Tilt, Jennie. See BLUNT, TILT, McLAUGHLIN, and GUNN, 1926, 67, 491
- Tisdall, Frederick F. See KRAMER and TISDALL, 1922, 53, 241
- The influence of the sodium ion in the production of tetany, 1922, 54, 35
- A note on the Kramer-Tisdall method for the determination of calcium in small amounts of serum, 1923, 56, 439
- See GAMBLE, ROSS, and TISDALL, 1923, 57, 633
- See DRAKE and TISDALL, 1926, 67, 91
- Titus, R. W. See HUGHES, NITCHER, and TITUS, 1925, 63, 205
- See HUGHES, PAYNE, TITUS, and MOORE, 1925, 66, 595
- See HUGHES and TITUS, 1926, 69, 289
- Tolstoi, Edward. The inorganic phosphorus of the serum and plasma of ninety-one normal adults as determined by the Bell and Doisy method, 1923, 55, 157
- See HESS, WEINSTOCK, and TOLSTOI, 1923, 57, 731
- Glycolysis in bloods of normal subjects and of diabetic patients, 1924, 60, 69
- See LOEBEL, BARR, TOLSTOI, and HIMWICH,
- Tompkins, Edna H. See PLASS and TOMPKINS, 1923, 56, 309
- Tourtellotte, Dee, and Hart, Merrill C. The chemical studies of the ovary. XI. The fat of ovarian residue, 1926-27, 71, 1
- Toverud, Guttorm. The influence of diet on teeth and bones, 1923-24, 58, 583
- Tracy, Edward. See McCLENDON, RUSSELL, and TRACY, 1926, 70, 705
- Trail, Ruth K. See BOGERT and TRAIL, 1922, 54, 387, 753
- Trimble, Harry C. See FOLIN and TRIMBLE, 1924, 60, 473
- See FOLIN, TRIMBLE, and NEWMAN, 1927, 75, 263
- Tudhope, Thomas Martin Aitken. See MCKENZIE and TUDHOPE, 1924-25, 62, 551
- Turner, Robert G. See ROCKWOOD and TURNER, 1927, 74, xvii
- Turner, William A. See MEIGS and TURNER, 1925, 63, xxix
- , Harding, T. Swann, and Hartman, Arthur M. Calcium and phosphorus metabolism in dairy cows. II. The relative assimilation of clover and alfalfa hays and of rations of varying calcium and phosphorus content, 1927, 74, xxvii
- Tuttle, Lucius. See LOEB, FLEISHER, and TUTTLE, 1922, 51, 461, 485
- Tyler, Margaret, and Underhill, Frank P. The influence of pregnancy upon the lipoids

- Uetani, Eikichi. See KASAHARA and UETANI, 1924, 59, 433
- Ulpts, R. See LEVENE and ULPTS, 1925, 64, 475
- Ulrichs, Hermann F. See COHN, MINOT, FULTON, ULRICHs, SARGENT, WEARE, and MURPHY, 1927, 74, lxi
- Underhill, Frank P., and Kapsinow, Robert. The comparative toxicity of ammonium salts, 1922, 54, 451
- and —. The influence of subcutaneous injections of indole and skatole upon the nitrogenous metabolism of the rabbit, 1922, 54, 717
- and —. The influence of water introduction upon blood concentration induced by water deprivation, 1922, 54, 459
- and Roth, S. Clement. The influence of water deprivation, pilocarpin, and histamine upon changes in blood concentration in the rabbit, 1922, 54, 607
- and Wakeman, Edward T. The behavior of chlorides introduced into the blood under normal and nephritic conditions, 1922, 54, 701
- See GROSS and UNDERHILL, 1922, 54, 105
- and Dimick, Alice. The metabolism of inorganic salts. IV. The content of inorganic salts in the blood in pregnancy, with especial reference to calcium, 1923-24, 58, 133
- and Gross, Erwin G. The metabolism of inorganic salts. V. Inorganic salt metabolism in cocaine poisoning, 1923-24, 58, 141
- and Karelitz, Samuel. The influence of hydrazine upon blood concentration and blood sugar content, 1923-24, 58, 147
- and Wilens, Gustav. Studies in carbohydrate metabolism. XXI. The relation of sugar excretion to renal integrity, 1923-24, 58, 153
- and Sallick, Myron A. On the mechanism of water intoxication, 1925, 63, 61
- See TYLER and UNDERHILL, 1925, 66, 1
- Updegraff, Helen. See LEWIS and UPDEGRAFF, 1923, 56, 405
- See LEWIS, UPDEGRAFF, and MCGINTY, 1924, 59, 59
- and Lewis, Howard B. A quantitative study of some organic constituents of the saliva, 1924, 61, 633
- See LEWIS, 1925, 65, 187
- , Greenberg, David M., and Clark, Guy W. A study of the distribution of the diffusible and non-diffusible calcium in the blood sera of normal animals, 1926-27, 71, 87

V

- Van Slyke, Donald D. On the measurement of buffer values and on the relationship of

- buffer value to the dissociation constant of the buffer and the concentration and reaction of the buffer solution, 1922, 52, 525
- . Studies of acidosis. XVIII. Determination of the bicarbonate concentration of the blood and plasma, 1922, 52, 495
- , Austin, J. Harold, and Cullen, Glenn E. The effect of ether anesthesia on the acid-base balance of the blood, 1922, 53, 277
- . See HASTINGS and VAN SLYKE, 1922, 53, 269
- . See HILLER and VAN SLYKE, 1922, 53, 253
- , Hastings, A. Baird, Heidelberger, Michael, and Neill, James M. Studies of gas and electrolyte equilibria in the blood. III. The alkali-binding and buffer values of oxyhemoglobin and reduced hemoglobin, 1922, 54, 481
- , —, and Neill, James M. Studies of gas and electrolyte equilibria in the blood. IV. The effect of oxygenation and reduction on the bicarbonate content and buffer value of blood, 1922, 54, 507
- . See AUSTIN, CULLEN, HASTINGS, MCLEAN, PETERS, and VAN SLYKE, 1922, 54, 121
- , Wu, Hsien, and McLean, Franklin C. Studies of gas and electrolyte equilibria in the blood. V. Factors controlling the electrolyte and water distribution in the blood, 1923, 56, 765
- . The determination of chlorides in blood and tissues, 1923-24, 58, 523
- . See HASTINGS, VAN SLYKE, NEILL, and HEIDELBERGER, 1924, 59, xx
- . See HASTINGS, VAN SLYKE, NEILL, HEIDELBERGER, and HARINGTON, 1924, 60, 89
- and Neill, James M. The determination of gases in blood and other solutions by vacuum extraction and manometric measurement. I, 1924, 61, 523
- . See HARINGTON and VAN SLYKE, 1924, 61, 575
- and Hastings, A. Baird. Distribution of electrolytes in blood, 1925, 63, xiii
- . See HILLER, LINDER, and VAN SLYKE, 1925, 64, 625
- , Hastings, A. Baird, Murray, Cecil D., and Sendroy, Julius, Jr. Studies of gas and electrolyte equilibria in blood. VIII. The distribution of hydrogen, chloride, and bicarbonate ions in oxygenated and reduced blood, 1925, 65, 701
- . The determination of gases in blood and other solutions by vacuum extraction and manometric measurement. III. Gasometric determination of methemoglobin, 1925, 66, 409
- and Vollmund, Erik. Studies of methemoglobin formation, 1925, 66, 415
- and Hiller, Alma. The residual reduction of blood, 1926, 68, 323

Van Slyke, Donald D.—*continued*.

- Gasometric micro-Kjeldahl determination of nitrogen, 1926-27, 71, 235

— and Robscheit-Robbins, Frieda S. The gasometric determination of small amounts of carbon monoxide in blood, and its application to blood volume studies, 1927, 72, 39

- Determination of urea by gasometric measurement of the carbon dioxide formed by the action of urease, 1927, 73, 695

— Note on a portable form of the manometric gas apparatus, and on certain points in the technique of its use, 1927, 73, 121

- and Sendroy, Julius Jr. Carbon dioxide factors for the manometric blood gas apparatus, 1927, 73, 127

— and Hawkins, James A. Gasometric determination of blood sugar, 1927, 74, viii

- , Hiller, Alma, and Berthelsen, Knud C. A gasometric micro method for determination of iodates and sulfates, and its application to the estimation of total base in blood serum, 1927, 74, 659

Van Wyck, H. B. See HARDING, ALLIN, and VAN WYCK, 1924-25, 62, 61

- See HARDING, ALLIN, EAGLES, and VAN WYCK, 1925, 63, 37, xlix

Vaughn, Margery. See MITCHELL and VAUGHN,

1927, 74, lxxviii
1927, 75, 123

Vedder, E. B., and Lawson, W. E. Solubilities of the antiscorbutic factor present in lemon juice, 1927, 73, 215

Vickery, Hubert Bradford. The rate of hydrolysis of wheat gliadin, 1922, 53, 495

- A product of mild acid hydrolysis of wheat gliadin, 1923, 56, 415

— Some nitrogenous constituents of the juice of the alfalfa plant. I. The amide and amino acid nitrogen, 1924, 60, 647

- II. The basic nitrogen, 1924, 61, 117

— and Leavenworth, Charles S. Some nitrogenous constituents of the juice of the alfalfa plant. III. Adenine in alfalfa, 1925, 63, 579

- Some nitrogenous constituents of the juice of the alfalfa plant. IV. The betaine fraction, 1925, 65, 81

— VI. Asparagine and amino acids in alfalfa, 1925, 65, 657

— and Vinson, Carl G. Some nitrogenous constituents of the juice of the alfalfa plant. V. The basic lead acetate precipitate, 1925, 65, 91

- Simpler nitrogenous constituents of yeast. I. Choline and nicotinic acid, 1926, 68, 585

- and Leavenworth, Charles S. On the separation of histidine and arginine, 1926, 68, 225
 - . A useful compound of histidine, 1926-27, 71, 303
 - and Leavenworth, Charles S. On the separation of histidine and arginine. II. The separation of the silver compounds at pH 7.0, 1927, 72, 403
 - and —. III. The preparation of arginine, 1927, 75, 115
 - Viehoever, Arno. See JOHNS, CHERNOFF, and VIEHOEVER, 1922, 52, 335
 - du Vigneaud, Vincent, and Karr, Walter G. Carbohydrate utilization. I. Rate of disappearance of *d*-glucose from the blood, 1925, 66, 281
 - . Is insulin inactivated by glucose? 1927, 73, 275
 - . The behavior of insulin preparations towards the uric acid reagent of Folin and Denis, 1927, 74, xvii
 - . The sulfur of insulin, 1927, 75, 393
 - Vinson, Carl G. See VICKERY and VINSON, 1925, 65, 91
 - Visscher, Maurice B. On the estimation of glucose in the presence of phosphate buffers, 1926, 69, 1
 - . On the optimum pH for glycogenase action and its bearing upon the regulation of the glucose level in the body, 1926, 69, 3
 - Voegtlin, Carl, Dunn, Edith R., and Thompson, J. W. Observations on intermediate carbohydrate metabolism by means of insulin, 1924, 59, xxxvii
 - , Thompson, J. W., and Dunn, Edith R. Hyperglycemia produced by glycerol, 1925, 64, 639
 - and —. Glutathione content of tumor animals, 1926, 70, 801
 - . See THOMPSON and VOEGTLIN, 1926, 70, 793
 - . See JOHNSON and VOEGTLIN, 1927, 75, 703
 - Vollmund, Erik. See VAN SLYKE and VOLLMUND, 1925, 66, 415
- W
- Waddell, J. See HART, STEENBOCK, ELVEHJEM, and WADDELL, 1925, 65, 67
 - . See HART, ELVEHJEM, WADDELL, and HERRIN, 1927, 72, 299
 - Waddell, S. S. See DEUEL, WADDELL, and MANDEL, 1926, 68, 801
 - Wakehan, Glen. Basal metabolism and the menstrual cycle, 1923, 56, 555
 - Wakeman, A. Maurice, Eisenman, Anna J., and Peters, John P. A study of human red blood cell permeability, 1927, 73, 567
 - Wakeman, Alfred J. See OSBORNE, WAKEMAN, and LEAVENWORTH, 1922, 53, 411
 - . See LEAVENWORTH, WAKEMAN, and OSBORNE, 1923-24, 58, 209
 - Wakeman, Edward T. See UNDERHILL and WAKEMAN, 1922, 54, 701

- Waksman, Selman A. See HEUKELEKIAN and WAKSMAN, 1925, 66, 323
- Walden, Eda B. See CLOWES and WALDEN, 1925, 63, lxiv
- Waldo, John H. See SHONLE and WALDO, 1923-24, 58, 731
1925, 66, 467
- Wallen-Lawrence, Zonja. See RONZONI and WALLEN-LAWRENCE, 1927, 74, 363
- Walti, A. See LEVENE and WALTI, 1926, 68, 415
1926-27, 71, 461
- See LEVENE, WALTI, and HALLER, 1926-27, 71, 465
- See LEVENE, HALLER, and WALTI, 1927, 72, 591
- See LEVENE and WALTI, 1927, 73, 263
1927, 75, 325
- Walton, James H., and Dittmar, Harry R. The hydrolysis of corn-starch by commercial pancreatin, 1926, 70, 713
- Wang, Chi Che, and Felsher, Augusta R. The effect of the ingestion of granular commercial glucose on the reducing substance in blood and urine, 1924, 59, liii
- and —. Some observations on sugar tolerance, using granular commercial glucose, chemically pure glucose, and chemically pure glucose plus extract of commercial glucose, 1924, 59, liv
- and —. The effect of alcoholic extract of commercial granular glucose on urinary reducing substance, 1924, 61, 659
- , Kern, Ruth, Frank, Margaret, and Dunwiddie, Jeanette. A study of the energy and substance metabolism of undernourished children, 1925, 63, lxi
- , Strouse, Solomon, and Smith, Edith A. Influence of fatigue on the heat production during muscular work in obese, normal, and thin subjects, 1927, 74, xxxvii
- Wasteneys, Hardolph, and Borsook, Henry. The enzymatic synthesis of protein. I. The synthesizing action of pepsin, 1924-25, 62, 15.
- and —. III. The effect of the hydrogen ion concentration on peptic synthesis, 1924-25, 62, 675
- and —. A method for the fractional analysis of incomplete protein hydrolysates, 1924-25, 62, 1
- See BORSOOK and WASTENEYS, 1924-25, 62, 633
- and Borsook, Henry. The enzymatic synthesis of protein. V. A note on the synthesizing action of trypsin, 1925, 63, 575
- See BORSOOK and WASTENEYS, 1925, 63, 563
- Waterman, Henry C. See JONES, FINKS, and WATERMAN, 1922, 52, 209
- See JONES and WATERMAN, 1922, 52, 357
- , Johns, Carl O., and Jones, D. Breese. Conphaseolin. A new globulin from the navy bean, *Phaseolus vulgaris*, 1923, 55, 93

- The preparation of tryptophane from the products of hydrolysis of lactalbumin with baryta,
1923, 56, 75
- See JONES and WATERMAN, 1923, 56, 501
- Waterman, R. E. See WILLIAMS and WATERMAN, 1926, 68, 499
- Way, Charles T. See MORRIS and WAY, 1924, 59, xxvi
- Weare, John H. See COHN, MINOT, FULTON, ULRICH, SARGENT, WEARE, and MURPHY, 1927, 74, lxi
- Wearn, J. T., and Richards, A. N. The concentration of chlorides in the glomerular urine of frogs,
1925, 66, 247
- and —. Quantitative estimation of minute amounts of urea, 1925, 66, 275
- Webb, P. K. See FRIEDEMANN, SOMOGYI, and WEBB, 1926, 67, xlv
- Weber, Clarence J. See BRIGGS, KOECHIG, DOISY, and WEBER, 1923-24, 58, 721
- See DOISY and WEBER, 1924, 59, xxxiv
- See DOISY, BRIGGS, WEBER, and KOECHIG, 1925, 63, xlviii
- , Briggs, A. P., and Doisy, Edward A. The formation of lactic acid by depancreatized dogs,
1925, 66, 653
- Weber, Ione. See LEVENE and MEYER, 1922, 53, 431, 437
- See LEVENE and WEBER, 1924, 60, 707, 717
- See LEVENE, YAMAGAWA, and WEBER, 1924, 60, 693
- Webster, B. P. See SIMPSON, 1924, 59, 107
- Weinstock, Mildred. See HESS, WEINSTOCK, and TOLSTOI, 1923, 57, 731
- See HESS and WEINSTOCK, 1924-25, 62, 301
1925, 63, xxv, 297
- See HESS, WEINSTOCK, and HELMAN, 1925, 63, 305
- See HESS and WEINSTOCK, 1925, 64, 181, 193
- See HESS, WEINSTOCK and SHERMAN, 1925, 66, 145
1926, 67, 413
1926, 70, 123
- Weiss, Robert, and Rapport, David. Animal calorimetry. XXVI. The interrelations between certain amino acids and proteins with reference to their specific dynamic action, 1924, 60, 513
- See RAPPORT, WEISS, and CSONKA, 1924, 60, 583
- See BOOTHBY and WEISS, 1925, 63, p. 1
- See GUTTMACHER and WEISS, 1927, 72, 283
- Wells, H. Gideon, and Lewis, Julian H. The solubility of coagulated proteins as indicated by immunological methods, 1924, 59, iii
- See LEWIS and WELLS, 1925, 66, 37
- Welo, Lars A. See BAUDISCH and WELO, 1924, 61, 261
1925, 64, 753, 771

- Welo, Lars A.—*continued*.
 — and Baudisch, Oskar. On the catalytically active and inactive forms of ferric oxide, 1925, 65, 215
- Wendel, William B. See NASH, 1925, 66, 869
- Wesson, Laurence G. The isolation of arachidonic acid from brain tissue, 1924, 60, 183
 —. On a possible relationship of arachidonic acid to the saturated fatty acids in fatty acid metabolism, 1925, 65, 235
 —. An apparatus and method for the determination of the respiratory quotient of small animals, 1927, 73, 499
 —. A fat formation under abnormal conditions from carbohydrate by the rat, and its relationship to a possible, new dietary factor, 1927, 73, 507
- West, Edward J. See FISKE, GOODELL, HATHAWAY, and WEST, 1926, 67, 385
- West, Edward S. Condensation products of acetoacetic ester. II. Oxidation and possible relationship to antiketogenesis in the animal body, 1925, 66, 63
 —. A chemical and electronic basis for the theory of antiketogenesis, 1926, 67, xlii
 —. Condensation products of acetoacetic ester. III. A series of new compounds of glucose. Further studies in antiketogenesis, 1927, 74, 561
 —. Further studies in antiketogenesis. A new reaction of glucose. Condensation with acetoacetic ester, 1927, 74, xlii
 —. See PETERSON and WEST, 1927, 74, 379
 —. See EATON and WEST, 1927, 75, 283
- West, R., and Benedict, Ethel M. The influence of ι -hydroxystearic ethyl ester on acidosis, 1925, 66, 139
 —. See BENEDICT, DAKIN, and WEST, 1926, 68, 1
- Westerman, Beulah D., and Rose, William C. The availability of disulfide acids as supplementing agents in diets deficient in cystine, 1927, 74, lxvii
 1927, 75, 533
- Wheeler, Theodora. See SANDIFORD and WHEELER, 1924-25, 62, 329
- Whelan, Mary. The effect of intravenous injection of inorganic chlorides on the composition of blood and urine, 1925, 63, 585
- Whipple, G. H. See SMYTH and WHIPPLE, 1924, 59, 623, 637, 647, 655
- White, Anne. See FULMER, NELSON, and WHITE, 1923, 57, 397
- White, F. D. A note on the nature of the pterate obtained from normal urine by the method of Findlay and Sharpe, 1926-27, 71, 419
- White, H. L., and Rabinowitch, J. Chemical and polarimetric observations on glucose and salt solutions recovered from Thiry-Vella loops, 1927, 74, 449

- Whitehorn, John C. "Permutit" as a reagent for amines,
1923, 56, 751
- A method for the determination of lipid phosphorus in blood and plasma,
1924-25, 62, 133
- Concerning chloride determinations by the modified Volhard titration,
1927, 74, 299
- Wickwire, George C. See BURGE and WICKWIRE,
1927, 72, 827
- See BURGE, WICKWIRE, ESTES, and WILLIAMS,
1927, 74, 235
- Wiener, B. S. See ROWE and WIENER,
1925, 63, lxxiii
- Wierzuchowski, M., and Ling, Shmorl M. Animal calorimetry. XXIX. On fat production in a young hog,
1925, 64, 697
- Hypoglycemia with convulsions in phlorhizin diabetes,
1926, 67, xlii
- Animal calorimetry. XXXI. Respiratory metabolism in phlorhizin diabetes after glucose ingestion,
1926, 68, 385
- Intermediary carbohydrate metabolism. I. Influence of insulin on levulose and glucose intravenously administered,
1926, 68, 631
- II. Ketosis in phlorhizin diabetes,
1927, 73, 417
- III. Vital action of glucose in phlorhizin diabetes,
1927, 73, 445
- Wilbur, Paul C. See SPOEHR and WILBUR,
1926, 69, 421
- Wilder, Russell M., Boothby, Walter M., and Beeler, Carol. Studies of the metabolism of diabetes,
1922, 51, 311
- and Winter, Malcolm D. The threshold of ketogenesis,
1922, 52, 393
- Wile, Udo J. See ECKSTEIN and WILE,
1926, 67, lix
1926, 69, 181
- Wilens, Gustav. See UNDERHILL and WILENS,
1923-24, 58, 153
- Willaman, J. J. The preparation of inulin, with special reference to artichoke tubers as a source,
1922, 51, 275
- and Olsen, Aksel G. The bios requirement of bakers' yeast,
1923, 55, 815
- Willard, Alice C., and Blunt, Katharine. A comparison of evaporated with pasteurized milk as a source of calcium, phosphorus, and nitrogen,
1927, 75, 251
- Williams, Maude. See BURGE, WICKWIRE, ESTES, and WILLIAMS,
1927, 74, 235
- Williams, R. R., and Waterman, R. E. The solubility of vitamin B in benzene,
1926, 68, 499
- Williamson, Jessie E. See CAMERON and MOORHOUSE,
1925, 63, 687
- Willimott, Stanley Gordon. The adsorption of carotin by different charcoals and inorganic salts,
1927, 73, 587
- Wilson, D. Wright. Determination of amino nitrogen in compounds reacting slowly with nitrous acid,
1923, 56, 183

- Wilson, D. Wright.—*continued*.
 —. The determination of free amino nitrogen in proteins, 1923, 56, 191
 —. A spontaneous crystallization of a Bence-Jones protein, 1923, 56, 203
 —. Studies in pyrimidine metabolism, 1923, 56, 215
 —, Long, W. L., Thompson, H. C., and Thurlow, Sylva. Changes in the composition of the urine after muscular exercise, 1925, 65, 755
 —. See LILJESTRAND and WILSON, 1925, 65, 773
 Wilson, H. Ellis C. The conditions under which carbohydrate is oxidized in phlorhizinized dogs, 1927, 74, xxxix
 —. See DEUEL, WILSON, and MILHORAT, 1927, 74, 265
 Wilson, J. Walter. The relation of photosynthesis to the production of vitamin A in plants, 1922, 51, 455
 Wilson, P. W., Peterson, W. H., and Fred, E. B. The production of acetylmethyl carbinol by *Clostridium acetobutylicum*, 1927, 74, 495
 Wilson, Ray S. See FINGER and WILSON, 1924, 59, 83
 Wilson, Robert H. See LEWIS and WILSON, 1926, 69, 125
 — and Lewis, Howard B. The cystine content of hair and other epidermal tissues, 1927, 73, 543
 Winegarden, Howard M. See ALLES and WINEGARDEN, 1923-24, 58, 225
 —. See RAYMOND and WINEGARDEN, 1927, 74, 175, 189
 Wing, Raymond. See LAMSON and WING, 1926, 69, 349
 Winter, A. R. See FORBES, SCHULZ, HUNT, WINTER, and REMLER, 1922, 52, 281
 —. See HUNT, WINTER, and MILLER, 1923, 55, 739
 Winter, Malcolm D. See WILDER and WINTER, 1922, 52, 393
 Winternitz, Milton C. See OSBORNE, MENDEL, PARK, and WINTERNITZ, 1926-27, 71, 317
 Wintersteiner, Oskar. See LEVENE and WINTERSTEINER, 1927, 75, 315
 Witzemann, Edgar J., and Livshis, Laura. The action of proteolytic enzymes upon insulin, 1923, 57, 425
 — and —. The action of ammonium hydroxide and other alkaline compounds upon insulin, 1923-24, 58, 463
 —. See KENDALL and WITZEMANN, 1927, 74, xlix
 Wolf, C. G. L. Some human digestion experiments with raw white of egg, 1922, 52, 207
 Wolf, J. T. See MIRIAM, WOLF, and SHERWIN, 1926-27, 71, 249, 695
 Wong, San Yin. Colorimetric determination of iron and hemoglobin in blood, 1923, 55, 421
 —. The use of persulfate in the estimation of nitrogen by the Arnold-Gunning modification of Kjeldahl's method, 1923, 55, 427

- The use of persulfate in the estimation of nitrogen by Folin's direct Nesslerization method, 1923, 55, 431
- Woods, Ella. Some observations upon the rôle of cystine and certain mineral elements in nutrition, 1925, 66, 57
- See SHERMAN and WOODS, 1925, 66, 29
- Woodyatt, R. T. See FELSHER, and WOODYATT, 1924, 60, 737
- Wright, Floyd R. See HUBBARD and WRIGHT, 1923, 57, 115
1924, 61, 377
- Wright, Norman Charles, and Rule, William. A simple form of rotating dialyzer, 1927, 75, 185
- Wright, Sydney L., Jr. Note on colorimeter correction curves, 1926-27, 71, 209
- Wu, Daisy Yen. See WU and WU, 1925, 64, 369
- Wu, Hsien. A new colorimetric method for the determination of plasma proteins, 1922, 51, 33
- Separate analyses of the corpuscles and the plasma, 1922, 51, 21
- See FOLIN, 1922, 51, 377
- See VAN SLYKE, WU, and McLEAN, 1923, 56, 765
- and Wu, Daisy Yen. Nature of heat denaturation of proteins, 1925, 64, 369
- Note on Donnan equilibrium and osmotic pressure relationship between the cells and the serum, 1926, 70, 203
- Yamagawa, M. See LEVENE, YAMAGAWA, and WEBER, 1924, 60, 693
- Yates, W. W. See MILLER and YATES, 1924-25, 62, 259
- Yen, Daisy. See ROSE and MACLEOD, 1925, 66, 847
- Yoder, Lester. See DOX and YODER, 1922, 54, 671
- The relation between peroxidation and antirachitic vitamin, 1926, 70, 297
- Effect of antirachitic vitamin on the phosphorus, calcium, and pH in the intestinal tract, 1927, 74, 321
- Young, E. Gordon. The decomposition of glucose by bacteria, 1924, 59, xliii
- The autolytic powers of *Bacillus coli communis*, 1927, 74, lxii
- Young, William G. See SMITH and YOUNG, 1927, 75, 289
- Youngburg, Guy E., and Pucher, George W. Studies on pentose metabolism. I. A colorimetric method for the estimation of furfural, 1924, 61, 741
- and —. Analytical methods and observations on the organic phosphorus of the urine, 1924-25, 62, 31
- and Finch, Myron W. The effect of temperature on metabolism, particularly that of protein, 1926, 68, 335
- Studies on pentose metabolism. II. A micro method for the determination of pentoses and pentosans, 1927, 73, 599

- van der Zande, J. E. See
SJOLEMA and VAN DER
ZANDE, 1922, 53, 513
- Ziegler, Mildred R. See
SCHLUTZ and ZIEGLER,
1926, 69, 415
- . See SCHLUTZ, ZIEGLER,
and MORSE,
1927, 73, 209
- Zimmerman, R. L. See
MITCHELL, ZIMMERMAN, and
HAMILTON,
1926-27, 71, 379

SUBJECT INDEX

Abortion:

- Blood plasma protein fractions (Howe and SANDERSON) 1924-25, 62, 767

Absorption:

- Calcium, and carbohydrates (BERGEIM) 1926, 70, 35
- , intestine (BERGEIM) 1926, 67, lv
1926, 70, 51
- salts, intestinal, solubility, relation (IRVING) 1926, 68, 513
- Colloids, organic, intestinal mucosa (MACALLUM) 1924, 59, xvii
- Copper from milk by infant (HESS, SUPPLEE, and BELLIS) 1923, 57, 725
- Ether, concentration relation and fate (HAGGARD) 1924, 59, 737
- Ethyl ether. I (HAGGARD) 1924, 59, 737
- II (HAGGARD) 1924, 59, 753
- III (HAGGARD) 1924, 59, 771
- IV (HAGGARD) 1924, 59, 783
- V (HAGGARD) 1924, 59, 795
- —, mechanism (HAGGARD) 1924, 59, 753

Absorption—continued:

- Fat (ECKSTEIN) 1924-25, 62, 737
- Fructose, glycogen formation and (CORI and CORI) 1927, 73, 555
- , — — —, insulin influence (CORI and CORI) 1927, 73, 555
- , — — — rate, liver (CORI) 1926, 70, 577
- , — — —, liver, insulin influence (CORI) 1926, 70, 577
- , sugar oxidation and (CORI and CORI) 1927, 73, 555
- , — — —, insulin influence (CORI and CORI) 1927, 73, 555
- Galactose, glycogen formation rate, liver (CORI) 1926, 70, 577
- , — — —, liver, insulin influence (CORI) 1926, 70, 577
- Gastrointestinal tract, method for study (BERGEIM) 1926, 70, 47
- Glucose, glycogen formation and (CORI and CORI) 1926, 70, 557
- , — — —, insulin influence (CORI and CORI) 1926, 70, 557
- , — — — rate, liver (CORI) 1926, 70, 577

Absorption—continued:

Glucose, glycogen formation rate, liver, insulin influence (CORI)

1926, 70, 577

—, sugar oxidation and (CORI and CORI)

1926, 70, 557

—, — — —, insulin influence (CORI and CORI)

1926, 70, 557

Hexoses, intestinal tract (CORI)

1925, 66, 691

Histamine, intestine (KOESLER and HANKE)

1924, 59, 889

Inulin, glycogen formation as evidence (BODEY, LEWIS, and HUBER)

1927, 75, 715

Metallic salts, fish. II (THOMAS)

1923-24, 58, 671

Nickel by *Fundulus heteroclitus* (THOMAS)

1923-24, 58, 671

Oxygen, blood (McELROY and GUTHRIE)

1927, 74, xxxv

Pentoses, intestinal tract (CORI)

1925, 66, 691

Phosphorus, and carbohydrates (BERGEM)

1926, 70, 35

—, intestine (BERGEM)

1926, 67, lv

1926, 70, 51

Sodium benzoate, intestine (GRIFFITH)

1924, 59, li

— hippurate, intestine (GRIFFITH)

1924, 59, li

Absorption curve:

Carbon dioxide, blood (PETERS)

1923, 56, 745

—, —, acid-base-protein equilibrium, temperature effect (STADIE, AUSTIN, and ROBINSON)

1925, 66, 901

—, —, construction (PETERS, BULGER, and EISENMAN)

1923-24, 58, 769

—, —, hemoglobin relation (PETERS, BULGER, and EISENMAN)

1923-24, 58, 747

—, —, human. I (PETERS, BULGER, and EISENMAN)

1923, 55, 687

II (PETERS, EISENMAN, and BULGER)

1923, 55, 709

III (PETERS)

1923, 56, 745

IV (PETERS, BULGER, and EISENMAN)

1923-24, 58, 747

V (PETERS, BULGER, and EISENMAN)

1923-24, 58, 769

VI (PETERS, BULGER, and EISENMAN)

1923-24, 58, 773

—, — serum, acid-base-protein equilibrium, temperature effect (STADIE, AUSTIN, and ROBINSON)

1925, 66, 901

Absorption spectrum:

Cholesterol (SCHLUTZ and ZIEGLER)

1926, 69, 415

—, irradiated (HESS and WEINSTOCK)

1925, 64, 193

Absorption spectrum—continued:

- Phytosterol, irradiated
(HESS and WEINSTOCK)
1925, 64, 193
- Ultra-violet, amino acids
(STENSTRÖM and REINHARD)
1925, 66, 819
- , blood serum (STENSTRÖM and REINHARD)
1925, 66, 819

Acetaldehyde:

- Blood (GEE and CHAIKOFF)
1926, 70, 151
- , diabetic (GEE and CHAIKOFF)
1926, 70, 151
- , —, identification (GEE and CHAIKOFF)
1926, 70, 151
- , identification (GEE and CHAIKOFF)
1926, 70, 151
- Formation, insulin influence (SUPNIEWSKI)
1926, 70, 13
- Metabolism, animal, rôle (BRIGGS)
1926–27, 71, 67

Acetic acid:

- Glacial, antineuritic, water-soluble B, solvent (LEVINE, MCCOLLUM, and SIMMONDS)
1922, 53, 7

Acetoacetic acid:

- Hexoses, reaction (FRIEDEMANN)
1925, 63, xxi

Acetoacetic ester(s):

- Condensation products.
II (WEST)
1925, 66, 63
- III (WEST)
1927, 74, 561
- , —, oxidation, antiketogenesis relation (WEST)
1925, 66, 63

Acetoacetic ester(s)—continued:

- Glucose condensation compounds (WEST)
1927, 74, xlii, 561
- — —, antiketogenesis relation (WEST)
1927, 74, xlii, 561

Acetone:

- Acid-base equilibrium, blood, relation (HIMWICH, LOEBEL, and BARR)
1924, 59, 265
- Butyl alcohol fermentation, l-leucic acid formation (SCHMIDT, PETERSON, and FRED)
1924, 61, 163
- Carbohydrate fermentation (ROBINSON)
1922, 53, 125
- Formation, *Bacillus acetoehtylicum*, sugars (SPEAKMAN)
1925, 64, 41

Acetone bodies:

- Blood (HUBBARD and NOBACK)
1925, 63, 391
- , determination, colorimetric (BEHRE and BENEDICT)
1926, 70, 487
- , ketogenic diet effect (MCQUARRIE and KEITH)
1927, 74, xvi
- Determination, colorimetric, blood (BEHRE and BENEDICT)
1926, 70, 487
- , —, urine (BEHRE and BENEDICT)
1926, 70, 487
- Excretion, diurnal variation (HUBBARD and WRIGET)
1924, 61, 377

Acetone bodies—continued:

Fat, body, precursor (HUBBARD) 1923, 55, 357

—, ingested, precursor (HUBBARD)

1923, 55, 357

Tests (BIGWOOD and LADD) 1923-24, 58, 347

Urine, normal (HUBBARD and NOBACK)

1925, 63, 391

—, determination, colorimetric (BEHRE and BENEDICT)

1926, 70, 487

—, ketogenic diet effect (McQUARRIE and KEITH)

1927, 74, xvi

Acetonuria:

Border-line of, diet and (HUBBARD and WRIGHT)

1923, 57, 115

Diabetes (HUBBARD and NICHOLSON)

1922, 53, 209

Acetylation:

Amino compounds (MUENZEN, CERECEDO, and SHERWIN)

1926, 67, 469

Detoxicating reaction and (MUENZEN, CERECEDO, and SHERWIN)

1925, 63, xvi

Acetylmethyl carbinol:

Clostridium acetobutylicum, production (WILSON, PETERSON, and FRED)

1927, 74, 495

Acetyl monoses:

I (LEVENE and SOBOTKA) 1926, 67, 759

II (LEVENE and SOBOTKA) 1926, 67, 771

III (LEVENE and BENCOWITZ) 1927, 72, 627

Acid(s):

Acid-base balance, ingestion effect (KOEHLER) 1927, 72, 99

Ammonia excretion, effect (FISKE and SOKHEY) 1925, 63, 309

Base, fixed, excretion, effect (FISKE and SOKHEY) 1925, 63, 309

Blood plasma, concentration (PETERS, BULGER, EISENMAN, and LEE) 1926, 67, 141

—, oxygenated, carbon dioxide tension effect (EISENMAN, BULGER, and PETERS)

1926, 67, 159

Carbon dioxide and oxygen, interaction, blood (HILL)

1922, 51, 359

-Combining properties, blood. II (STADIE and Ross)

1926, 68, 229

Excretion (HUBBARD and MUNFORD)

1922, 54, 465

—, acidosis, diabetes (HENDRIX, FAY, CALVIN, and BODANSKY)

1926, 69, 449

—, kidney, sodium hippurate injection effect (HENDRIX and SANDERS)

1923-24, 58, 503

—, —, — phosphate injection effect (HENDRIX and SANDERS)

1923-24, 58, 503

—, uranium nephritis, acidosis relation (HENDRIX and BODANSKY)

1924, 60, 657

Acid(s)—continued:

Excretion, uranium nephritis, hyperglycemia relation (HENDRIX and BODANSKY)

1924, 60, 657

Fate, body (FISKE, GOOD-ELL, HATHAWAY, and WEST)

1926, 67, 385

-Forming diets, calcium metabolism, effect (BOGERT and KIRKPATRICK)

1922, 54, 375

— elements, foods (CLARK)

1925, 65, 597

1927, 73, 389

— enzyme, stomach, hydrochloric acid mechanism, rôle (HANKE)

1926, 67, xi

— —, tissues (HANKE)

1926, 67, xi

Insulin destruction (SHONLE and WALDO)

1925, 66, 467

Kidney effect, excess in diet (ADDIS, MACKAY, and MACKAY)

1926-27, 71, 157

Liver autolysis, formation in (SEVRINGHAUS)

1923, 57, 181

Oxygen and carbon dioxide interaction, blood (HILL)

1922, 51, 359

Production, *Bacillus granulobacter pectinovorum*, and molecular configuration in sugars (SPEAKMAN)

1923-24, 58, 395

Acid-base:

Balance, acid ingestion effect (KOEHLER)

1927, 72, 99

Acid-base—continued:

Balance, base ingestion effect (KOEHLER)

1927, 72, 99

—, blood, alcohol and carbon tetrachloride effect (LAMSON and WING)

1926, 69, 349

—, —, — effect (LAMSON and WING)

1926, 69, 349

—, —, carbon tetrachloride effect (LAMSON and WING)

1926, 69, 349

—, —, disease (MYERS and BOOHER)

1924, 59, xxiii, 699

—, —, ether anesthesia effect (VAN SLYKE, AUSTIN, and CULLEN)

1922, 53, 277

—, histamine effect (HILLER)

1926, 68, 833

Equilibrium, acetone accumulation, blood, relation (HIMWICH, LOEBEL, and BARR)

1924, 59, 265

—, blood (HAWKINS)

1924, 61, 147

—, —, alkali effect (MYERS and MUNTWYLER)

1927, 74, xxiv

—, —, hemorrhage, changes (BENNETT)

1926, 69, 675

—, —, pyloric obstruction (FELTY and MURRAY)

1923, 57, 573

—, — plasma. I (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 141

II (EISENMAN, BULGER, and PETERS)

1926, 67, 159

Acid-base—continued:

Equilibrium, blood plasma.

III (PETERS, BULGER,
and EISENMAN)

1926, 67, 165

IV (PETERS, BULGER,
EISENMAN, and LEE)

1926, 67, 175

V (PETERS, BULGER,
EISENMAN, and LEE)

1926, 67, 219

—, —, anoxemia effect
(PETERS, BULGER,
EISENMAN, and LEE)

1926, 67, 175

—, —, exercise effect
(PETERS, BULGER, EISEN-
MAN, and LEE)

1926, 67, 175

—, —, hyperpnea effect
(PETERS, BULGER,
EISENMAN, and LEE)

1926, 67, 175

—, —, stasis effect
(PETERS, BULGER,
EISENMAN, and LEE)

1926, 67, 175

—, body, external heat
effect (CAJORI, CROUTER,
and PEMBERTON)

1923, 57, 217

—, exercise effect (BARR,
HIMWICH, and GREEN)

1923, 55, 495

(BARR and HIMWICH)

1923, 55, 539

—, lactic acid accumula-
tion, blood, relation
(HIMWICH, LOEBEL, and
BARR)

1924, 59, 265

—, sodium *r*-lactate utili-
zation, effect (ABRAM-
SON and EGGLETON)

1927, 75, 753

two-phase systems
(MURRAY)

1923, 56, 569

Acid-base—continued:Metabolism. I (SHOHL
and SATO)

1923-24, 58, 235

II (SHOHL and SATO)

1923-24, 58, 257

Titration, electrometric,
quinhydrone electrode
(LA MER and PARSONS)

1923, 57, 613

Acid-base-protein:Equilibrium, carbon di-
oxide absorption curve,
blood, temperature ef-
fect (STADIE, AUSTIN, and
ROBINSON)

1925, 66, 901

—, — — — curve, blood
serum, temperature effect
(STADIE, AUSTIN, and
ROBINSON)

1925, 66, 901

—, temperature effect
(STADIE, AUSTIN, and
ROBINSON)

1925, 66, 901

Acid hematin:Hemoglobin determina-
tion, new permanent
standard for (OSGOOD
and HASKINS)

1923, 57, 107

Acidity:

Autolysis, rise (MORSE)

1923, 55, viii

Milk, titratable, hydrogen
ion concentration rela-
tion (SHARP and McINER-
NEY)

1927, 75, 177

Postmortem (SEVRING-
HAUS)

1923, 55, vii

I (SEVRINGHAUS)

1923, 57, 181

II (SEVRINGHAUS)

1923, 57, 191

Urine (MORGULIS and
HAMSA)

1927, 74, 851

Acidity—continued:

Urine. I (BLATHERWICK
and LONG)

1922, 53, 103

II (BLATHERWICK and
LONG)

1923, 57, 815

—, cranberries, effect
(BLATHERWICK and
LONG)

1923, 57, 815

—, orange juice effect
(BLATHERWICK and
LONG)

1922, 53, 103

—, prunes, effect (BLATH-
ERWICK and LONG)

1923, 57, 815

—, sour milk effect
(BLATHERWICK and
LONG)

1922, 53, 103

Acidosis:

XVIII (VAN SLYKE)

1922, 52, 495

XIX (CULLEN)

1922, 52, 501

XX (HASTINGS and SEND-
ROY)

1924, 61, 695

XXI (HASTINGS, SENDROY,
and ROBSON)

1925, 65, 381

Acid excretion, uranium
nephritis, relation

(HENDRIX and BODAN-
SKY)

1924, 60, 657

Alkali reserve, blood, in-
sulin effect (CULLEN and
JONAS)

1923, 57, 541

Anesthesia (CULLEN and
AUSTIN)

1923, 55, xlii

(CULLEN, AUSTIN,
KORNBLUM, and ROBIN-
SON)

1923, 56, 625

(KOEHLER)

1924-25, 62, 435

—, ether (LEAKE, LEAKE,
and KOEHLER)

1923, 56, 319

Acidosis—continued:

Anesthesia, ether, lactic
acid rôle (RONZONI,
KOECHIG, and EATON)

1924, 61, 465

—, mechanism (STEHLE
and BOURNE)

1924, 60, 17

Anoxemia, production
(KOEHLER, BRUNQUIST,
and LOEVENHART)

1923, 55, ix

1925, 64, 313

Base excretion, uranium
nephritis, relation

(HENDRIX and BODAN-
SKY)

1924, 60, 657

Diabetes, acid excretion
effect (HENDRIX, FAY,
CALVIN, and BODANSKY)

1926, 69, 449

—, alkali reserve, blood,
insulin effect (CULLEN
and JONAS)

1923, 57, 541

—, base excretion effect
(HENDRIX, FAY, CALVIN,
and BODANSKY)

1926, 69, 449

—, hydrogen ion concen-
tration, blood, insulin
effect (CULLEN and
JONAS)

1923, 57, 541

Ether anesthesia (LEAKE,
LEAKE, and KOEHLER)

1923, 56, 319

—, lactic acid rôle (RON-
ZONI, KOECHIG, and
EATON)

1924, 61, 465

—, blood electrolyte
changes (AUSTIN, CUL-
LEN, GRAM, and ROBIN-
SON)

1924, 61, 829

Acidosis—continued:

Hydrogen ion concentration, blood, insulin effect (CULLEN and JONAS)

1923, 57, 541

α -Hydroxystearic ethyl ester, influence (WEST and BENEDICT)

1925, 66, 139

Insulin effect, alkali reserve, blood (CULLEN and JONAS)

1923, 57, 541

— —, hydrogen ion concentration, blood (CULLEN and JONAS)

1923, 57, 541

Ketone bodies in urine (COLLIP)

1923, 55, xxxviii

Mechanism, anesthesia (STEHLE and BOURNE)

1924, 60, 17

Nephritis, uranium, acid excretion, relation

(HENDRIX and BODANSKY)

1924, 60, 657

— —, base excretion, relation (HENDRIX and BODANSKY)

1924, 60, 657

— —, sugar excretion, relation (HENDRIX and BODANSKY)

1924, 60, 657

Sugar excretion, uranium nephritis, relation

(HENDRIX and BODANSKY)

1924, 60, 657

— metabolism, effect (KOEHLER)

1926, 67, xlv

Activity coefficient:

Bicarbonate ion, cyan-hemoglobin solutions (STADIE and HAWES)

1927, 74, xxxi

Activity coefficient—continued:

Bicarbonate ion, hemoglobin solutions (STADIE and HAWES)

1927, 74, xxxi

— —, methemoglobin solutions (STADIE and HAWES)

1927, 74, xxxi

— —, nitric oxide solutions (STADIE and HAWES)

1927, 74, xxxi

Adenine:

Alfalfa juice (VICKERY and LEAVENWORTH)

1925, 63, 579

Nucleotide, blood, human (JACKSON)

1923, 57, 121

—, isolation, blood (HOFFMAN)

1925, 63, 675

—, preparation, tea leaves (CALVERY)

1926, 68, 593

Oxy- (BUELL and PERKINS)

1927, 72, 745

Adenosine hexoside:

Yeast (LEVENE)

1924, 59, 465

Adrenalectomy:

Carbohydrate metabolism (CORI and CORI)

1927, 74, 473

Glucose, fate (CORI and CORI)

1927, 74, p. 1

Adrenalin:

Calorigenic agent, catalytic power (BOOTHBY and SANDIFORD)

1924, 59, xl

Color reaction (FRIEND)

1923, 57, 497

Destruction rate (BOOTHBY and SANDIFORD)

1924, 59, xl

Adrenalin—continued:

Ptyalin, promoter action
(ROCKWOOD and
KELTCH) 1926, 67, lvi
See also Epinephrine.

Adsorption:

Albumin, egg (CLARK and
MANN) 1922, 52, 157
Carotene, charcoals (WILLI-
MOTT) 1927, 73, 587
—, inorganic salts (WILLI-
MOTT) 1927, 73, 587
Cresol red, by blood serum
(HIRSCH) 1925, 63, 55
Dextrin (CLARK and
MANN) 1922, 52, 157
Gum arabic (CLARK and
MANN) 1922, 52, 157
Insulin, benzoic acid
(MOLONEY and FIND-
LAY) 1923, 57, 359
Nitrogen, hemoglobin
(CONANT and SCOTT)
1926, 68, 107
Protein relation to libera-
tion. II (ROSENTHAL)
1926, 70, 129
Starch (CLARK and MANN)
1922, 52, 157
Sugars (CLARK and MANN)
1922, 52, 157

Adsuki bean:

See Bean.

Agar:

Birefringence (FIELD and
ALSBERG) 1925, 63, xlii
Electrodialysis (HOFFMAN
and GORTNER)
1925, 65, 371

Agar acid:

Free, preparation (HOFF-
MAN and GORTNER)
1925, 65, 371

Agave lechuguilla:

Saponin (JOHNS, CHERN-
OFF, and VIEHOEVER)
1922, 52, 335

Age:

Blood proteins, relation
(HOWE) 1922, 53, 479
Bone composition, effect
(HAMMETT) 1925, 63, xxx
Calcium, body, relation
(SHERMAN and MAC-
LEOD) 1925, 63, xxx
1925, 64, 429
Chemical development
and, mammals (MOUL-
TON) 1923, 57, 79
Phosphorus, body, relation
(SHERMAN and QUINN)
1926, 67, xxxiii, 667

Agglutinin:

Sperm (CLOWES and
WALDEN) 1925, 63, lxiv

Aglucone:

Cardiac, lactone group,
double bond association
(JACOBS, HOFFMANN,
and GUSTUS) 1926, 70, 1

Air:

Alveolar, carbon dioxide
equilibrium (BOCK and
FIELD) 1924-25, 62, 269
II (DILL, HURXTHAL,
VAN CAULAERT, FÖLL-
ING, and BOCK) 1927, 74, 303
III (DILL, LAWRENCE,
HURXTHAL, and BOCK)
1927, 74, 313
—, —, —, exercising sub-
jects (DILL, LAWRENCE,
HURXTHAL, and BOCK)
1927, 74, 313
—, —, —, resting sub-
jects (DILL, HURXTHAL,
VAN CAULAERT, FÖLLING,
and BOCK) 1927, 74, 303

Air—continued:

Carbon dioxide in sampling
(CARPENTER and FOX)
1927, 73, 379

Ethyl ether determination
in (HAGGARD)

1923, 55, 131

(SHAFFER and RONZONI)

1923, 57, 741

— — distribution ratio
between blood and
(SHAFFER and RONZONI)

1923, 57, 741

— iodide determination in
(STARR and GAMBLE)

1926-27, 71, 509

Irradiated, rickets preven-
tion (HUGHES, NITCHER,
and TITUS)

1925, 63, 205

—, ultra-violet, growth-pro-
moting properties (NEL-
SON and STEENBOCK)

1924-25, 62, 575

Out-of-door, effect (Pow-
ERS, PARK, and SIM-
MONDS)

1923, 55, 575

Respiratory, oxygen, deter-
mination (SHEAFF)

1922, 52, 35

Air-bladder:

California singing fish,
gases (GREENE)

1924, 59, 615

Alanine:

Dextro-alanyl-dextro, "an-
hydride, alkali action
(LEVENE and PFALTZ)

1925, 63, 661

Tryptophane synthesis,
animal organism, rôle
(SURE)

1924, 59, xvi

Albumin:

Blood plasma, *Bacillus*
abortus injection effect
(HOWE and SANDERSON)

1924-25, 62, 767

Bran, wheat (JONES and
GERSDORFF)

1923-24, 58, 117

Crystalline, egg, molecular
dimensions (DU NOÛY)

1925, 64, 595

—, —, — weight (DU
NOÛY)

1925, 64, 595

Egg, adsorption (CLARK
and MANN)

1922, 52, 157

—, emulsifying agent, ac-
tion as (CLARK and
MANN)

1922, 52, 157

-Globulin fraction, tubercle
bacillus (COGHILL)

1926, 70, 439

Locust bark, amino acids
(JONES, GERSDORFF, and
MOELLER)

1925, 64, 655

— —, composition (JONES,
GERSDORFF, and MOEL-
LER)

1925, 64, 655

— —, nitrogen distribu-
tion (JONES, GERSDORFF,
and MOELLER)

1925, 64, 655

— —, properties (JONES,
GERSDORFF, and MOEL-
LER)

1925, 64, 655

Wheat bran (JONES and
GERSDORFF)

1923-24, 58, 117

Alcaptonuria:

Rabbit (LEWIS)

1926, 70, 659

Alcohol:

Blood, acid-base balance,
effect (LAMSON and
WING)

1926, 69, 349

Fermentation, yeast, *l*-
malic acid formation
(DAKIN)

1924, 61, 139

Placental tissue (McNALLY,
EMBREE, and RUST)

1927, 74, 219

Secondary, hydroxy acids,
configurational relation
(LEVENE and HALLER)

1925, 65, 49

—, hydroxyl substitution
by halogen (LEVENE and
MIKESKA)

1925, 65, 507

1926, 70, 355

-Soluble protein, polished
rice, isolation (HOFFMAN)

1925, 66, 501

— —, vegetable, immuno-
logical properties. IX
(LEWIS and WELLS)

1925, 66, 37

Yeast metabolism (BROWN
and BALLS)

1924-25, 62, 823

Alcohol test:

Milk, evaporated, stability
during sterilization
(BENTON and ALBERY)

1926, 68, 251

Aldehydes:

Ketones and, crossed dis-
mutation. I (GORDON)

1927, 75, 163

Aldobionic acid:

Specific polysaccharide,
pneumococcus, Type
III (HEIDELBERGER and
GOEBEL)

1927, 74, 613

Aldoses:

Oxidation, bionic acid prep-
aration (GOEBEL)

1927, 72, 809

—, hexonic acid prepara-
tion (GOEBEL)

1927, 72, 809

Alfalfa:

Calcium balance, milking
cows, effect (HART,
STEENBOCK, HOPPERT,
and HUMPHREY)

1922, 53, 21

Juice, adenine (VICKERY
and LEAVENWORTH)

1925, 63, 579

—, amide nitrogen (VICK-
ERY)

1924, 60, 647

—, amino acid nitrogen
(VICKERY)

1924, 60, 647

—, — acids (VICKERY)

1925, 65, 657

—, asparagine (VICKERY)

1925, 65, 657

—, basic lead acetate, pre-
cipitate (VICKERY and
VINSON)

1925, 65, 91

—, — substances (LEAVEN-
WORTH, WAKEMAN, and
OSBORNE)

1923-24, 58, 209

—, betaine fraction
(VICKERY)

1925, 65, 81

—, nitrogen, basic (VICK-
ERY)

1924, 61, 117

—, nitrogenous constitu-
ents. I (VICKERY)

1924, 60, 647

II (VICKERY)

1924, 61, 117

III (VICKERY and
LEAVENWORTH)

1925, 63, 579

Alfalfa—continued:

Juice, nitrogenous constituents. IV (VICKERY)

1925, 65, 81

V (VICKERY and VINSON)

1925, 65, 91

VI (VICKERY)

1925, 65, 657

Phosphorus balance, milking cows, effect (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1922, 53, 21

Protein, leaves (CHIBNALL and NOLAN)

1924-25, 62, 173

Water-soluble constituents (OSBORNE, WAKEMAN, and LEAVENWORTH)

1922, 53, 411

Alimentary canal:

Hippuric acid, hydrolysis (GRIFFITH and CAPPEL)

1925, 66, 683

Alkali:

Acid-base equilibria, blood, effect (MYERS and MUNTWYLER)

1927, 74, xxxiv

-Binding values, hemoglobin, reduced (VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL)

1922, 54, 481

— —, oxyhemoglobin (VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL)

1922, 54, 481

Insulin destruction (SHONLE and WALDO)

1925, 66, 467

Ketosis, diabetes mellitus, therapy (MOSENTHAL and KILLIAN)

1923, 55, xliii

Alkali—continued:

Kidney effect, excess in diet (ADDIS, MACKAY, and MACKAY)

1926-27, 71, 157

Metabolism, ether and morphine effect (STEHLE, BOURNE, and BARBOUR)

1922, 53, 341

—, — anesthesia effect (STEHLE, BOURNE, and BARBOUR)

1922, 53, 341

-Soluble protein, tubercle bacillus (COGHILL)

1926, 70, 449

Titratable, blood, determination (GREENWALD and LEWMAN)

1922, 54, 263

(SUMNER and HUBBARD)

1923, 56, 701

Alkaline reserve:

Blood, base loss, diuresis, effect (HENDRIX and CALVIN)

1925, 65, 197

—, diabetic acidosis, insulin treatment (CULLEN and JONAS)

1923, 57, 541

— serum, chicks (ACKERSON, BLISH, and MUSSEHL)

1925, 63, 75

— —, rickets, chicks (ACKERSON, BLISH, and MUSSEHL)

1925, 63, 75

Alkalosis:

Exercise effect on breathing (RONZONI)

1926, 67, xxv

Hydrazine sulfate injection, following (HENDRIX and McAMIS)

1924, 59, xxii

Alkalosis—continued:

Hydrazine sulfate production (HENDRIK and McAMIS) 1924, 61, 45

Tetany cause, sodium ion concentration, comparison (DENIS and VON MEYSENBUG)

1923, 57, 47

—, relation (GREENWALD)

1922, 54, 285

1924, 59, 1

Alkoxy:

Groups, determination, volumetric, organic compounds (EATON and WEST)

1927, 75, 283

Allantoin:

Biochemical studies. I (CHRISTMAN and LEWIS)

1923, 57, 379

Determination, urine (CHRISTMAN)

1926, 70, 173

Excretion, amino acid influence (CHRISTMAN and LEWIS)

1923, 57, 379

Alligator:

Blood, nitrogen distribution (HOPPING and SCOTT)

1923, 55, xxxiii

Urine, nitrogen distribution (HOPPING and SCOTT)

1923, 55, xxxiii

Almond:

Calcium, utilization (ROSE and MACLEOD)

1923, 55, xxiv

1923, 57, 305

Amebocyte:

Limulus, urease extraction (LOEB and BODANSKY)

1927, 72, 415

Amide nitrogen:

Alfalfa juice (VICKERY)

1924, 60, 647

Amides:

Hydrolysis, animal body (FISKE)

1923, 55, 191

Amines:

X (JOHNSON and DASCHAVSKY)

1924-25, 62, 725

Hydroxy, synthesis, Curtius method (LEVENE and SCHEIDEGGER)

1924, 60, 179

Kjeldahl-Gunning nitrogen determinations, presence in distillate (GORTNER and HOFFMAN)

1926, 70, 457

Permutit as reagent for (WHITEHORN)

1923, 56, 751

Poisonous, presence, mammalian organism (KOESSLER and HANKE)

1924, 59, iii

—, production, mammalian organism (KOESSLER and HANKE)

1924, 59, iii

Proteinogenous. XVI (KOESSLER and HANKE)

1924, 59, 803

XVII (HANKE and KOESSLER)

1924, 59, 835

XVIII (HANKE and KOESSLER)

1924, 59, 855

XIX (HANKE and KOESSLER)

1924, 59, 867

XX (HANKE and KOESSLER)

1924, 59, 879

XXI (KOESSLER and HANKE)

1924, 59, 889

Amines—continued:

Toxic, formation, intestinal bacteria (HANK and KOESSLER)

1924, 59, 835

Amino acid(s):

Absorption spectrum, ultra-violet (STENSTRÖM and REINHARD)

1925, 66, 819

Albumin, locust bark (JONES, GERSDORFF, and MOELLER)

1925, 64, 655

Alfalfa juice (VICKERY)

1925, 65, 657

Allantoin excretion, influence (CHRISTMAN and LEWIS)

1923, 57, 379

Aromatic, metabolism, intermediary (SHAMBAUGH and LEWIS)

1926, 67, xxx

Basic, casein (LEAVENWORTH)

1924, 61, 315

Bean proteins, nutritional value (JONES, FINKS, and WATERMAN)

1922, 52, 209

Benzoylated, animal organism. I (GRIFFITH)

1925, 66, 671

II (GRIFFITH and CAPPEL)

1925, 66, 683

III (GRIFFITH)

1926, 69, 197

Blood (GREENE, SANDIFORD, and ROSS)

1923-24, 58, 845

—, pathological (GREENE, SANDIFORD, and ROSS)

1923-24, 58, 845

Catabolism. I (CORLEY)

1926, 70, 99

Amino acid(s)—continued:

Distribution, urea formation (FOLIN and BERGLUND)

1922, 51, 395

Globulin, thyroid gland, distribution (ECKSTEIN)

1926, 67, 601

Hippuric acid elimination, benzoate administration effect (GRIFFITH and LEWIS)

1923, 57, 1

— — synthesis, benzoate administration effect (GRIFFITH and LEWIS)

1923, 57, 1

Ionization, optical rotation, effect (LEVENE, BASS, STEIGER, and BENCOWITZ)

1927, 72, 815

Metabolism (DAKIN)

1926, 67, 341

Milk (HIJIKATA)

1922, 51, 165

Nitrogen, alfalfa juice (VICKERY)

1924, 60, 647

—, blood (OKADA and HAYASHI)

1922, 51, 121

I (BLAU)

1923, 56, 861

II (BLAU)

1923, 56, 867

III (BLAU)

1923, 56, 873

—, —, determination, colorimetric (FOLIN)

1922, 51, 377

—, —, metabolism, myelogenous leucemia, relation (SANDIFORD, BOOTHBY, and GIFFIN)

1923, 55, xxiii

—, —, total free (BLAU)

1923, 56, 861

Amino acid(s)—continued:

Nitrogen, determination,
colorimetric, blood
(FOLIN)

1922, 51, 377

—, —, —, normal urine
(FOLIN)

1922, 51, 393

Nutrition. VIII (SURE)
1924, 59, xv, 577

IX (SURE)
1924, 59, xvi

Optical activity, sugar
metabolism, relation
(BURGE, WICKWIRE,
ESTES, and WILLIAMS)

1927, 74, 235

— properties (KEENAN)
1924-25, 62, 163

— rotation, ionization
effect (LEVENE, BASS,
STEIGER, and BENCO-
WITZ) 1927, 72, 815

Phenylacetylated, fate
(SHIPLE and SHERWIN)
1922, 53, 463

Promoters, action on
enzymes (ROCKWOOD)
1924, 59, xix

Protamine, sardine (DUNN)
1926, 70, 697

Protein split-product,
metabolism effect (RAP-
PORT and BEARD)

1927, 73, 299

— —, specific dynamic
action of protein, relation
(RAPPORT and BEARD)

1927, 73, 299

Proteins and, specific
dynamic action, inter-
relations (WEISS and
RAPPORT)

1924, 60, 513

Retention, urea formation
(FOLIN and BERGLUND)

1922, 51, 395

Amino acid(s)—continued:

Shrimp, muscle (JONES,
MOELLER, and GERS-
DORFF) 1925, 65, 59

Specific dynamic action,
proteins and, interrela-
tions (WEISS and RAP-
PORT) 1924, 60, 513

Sugar metabolism, optical
activity, relation
(BURGE, WICKWIRE,
ESTES, and WILLIAMS)
1927, 74, 235

Sulfur-containing, pan-
creatic amylase activity
(CALDWELL)

1924, 59, 661

—, protein hydrolysate
(MUELLER)

1923, 56, 157

II (MUELLER)
1923-24, 58, 373

—, sulfur excretion follow-
ing ingestion (MUELLER)
1923-24, 58, 373

Synthesis, animal organism
(MCGINTY, LEWIS, and
MARVEL)

1924-25, 62, 75

II (CROWDLE and SHER-
WIN) 1923, 55, 365

III (MULDOON, SHIPLE,
and SHERWIN)

1924, 59, 675

IV (HARROW and SHER-
WIN) 1926, 70, 683

Urea formation (FOLIN and
BERGLUND)

1922, 51, 395

Water, lake (PETERSON,
FRED, and DOMOGALLA)
1925, 63, xl, 287

Wheat bran and embryo,
proteins, comparison
(JONES and GERSDORFF)

1925, 64, 241

Amino acid(s)—continued:

- Wheat bran and endosperm,
proteins, comparison
(JONES and GERSDORFF)
1925, 64, 241
— —, proteins (JONES and
GERSDORFF)
1925, 64, 241

p-Amino acids:

- Fate, animal organism
(CERECEDO and SHERWIN)
1924-25, 62, 217

Amino compounds:

- Acetylation (MUENZEN,
CERECEDO, and SHERWIN)
1926, 67, 469

Amino nitrogen:

- Aliphatic, nitrous acid
reaction (DUNN and
SCHMIDT)
1922, 53, 401
Determination, nitrous
acid (WILSON)
1923, 56, 183
Free, determination, pro-
teins (WILSON)
1923, 56, 191
—, proteins, wheat bran
(JONES and GERS-
DORFF)
1925, 64, 241
—, —, — and embryo,
comparison (JONES and
GERSDORFF).
1925, 64, 241
—, —, — and endo-
sperm, comparison
(JONES and GERSDORFF)
1925, 64, 241
Nitrogen conversion to,
Van Slyke factors
(SHARP)
1924, 60, 77
 γ -Aminobutyric acid:
Phlorhizinized dog, fate
(CORLEY)
1926, 70, 99

2-Aminohexonic acid(s):

- Configuration (LEVENE)
1925, 63, 95
Sodium salts, specific rota-
tion (LEVENE)
1924, 59, 123
Specific rotation (LEVENE)
1924, 59, 123

2-Aminohexoses:

- Configuration (LEVENE)
1925, 63, 95

3-Aminohexoses:

- Deamination (LEVENE and
SOBOTKA)
1926-27, 71, 181

**1-Amino-2-hydroxy-*n*-heptade-
cane:**

- Synthesis (LEVENE and
HALLER)
1925, 63, 669

***m*-Aminophenylacetic acid:**

- Fate (MUENZEN, CERECEDO,
and SHERWIN)
1926, 68, 503

5-Aminouracil:

- Oxidation (BAUDISCH and
DAVIDSON)
1926-27, 71, 497

 δ -Aminovaleric acid:

- Phlorhizinized dog, fate
(CORLEY)
1926, 70, 99

Ammonia:

- Blood (NASH and BENE-
DICT)
1922, 51, 183
— sugar and (HORVATH)
1926, 70, 289
Determination, micro,
blood (GAD-ANDRESEN)
1922, 51, 367
—, —, organic fluids (GAD-
ANDRESEN)
1922, 51, 367
Elimination, vomiting rôle
(BLISS)
1926, 67, 109
(BENEDICT and NASH)
1926, 69, 381

Ammonia—continued:

Excretion (HUBBARD and MUNFORD)

1922, 54, 465

(HUBBARD)

1923-24, 58, 711

—, acid administration effect (FISKE and SOKHEY) 1925, 63, 309

—, kidney, sodium hipurate injection effect (HENDRIX and SANDERS)

1923-24, 58, 503

—, —, — phosphate injection effect (HENDRIX and SANDERS)

1923-24, 58, 503

Formation, site (BLISS)

1926, 67, 109

(BENEDICT and NASH)

1926, 69, 381

Organic fluids, determination, micro (GAD-ANDRESEN) 1922, 51, 367

Propylene oxide, action (LEVENE and WALT) 1926-27, 71, 461

Trypsin digestion, liberation (HUNTER and SMITH)

1924-25, 62, 649

Urine, origin (LOEB, ATCHLEY, and BENEDICT)

1924, 60, 491

III (RABINOWITCH)

1926, 69, 283

Ammonium cyanide:

Diketones, action (DAKIN and HARRINGTON)

1923, 55, 487

Ammonium hydroxide:

Insulin, action on (WITZMANN and LIVSHIS)

1923-24, 58, 463

Ammonium salts:

Toxicity, comparative (UNDERHILL and KAP-SINOW)

1922, 54, 451

Amygdalin:

Hydrogen cyanide content, determination by aeration (ROE)

1923-24, 58, 667

Amylase:

Activity, pancreatic, sulfur-containing amino acid, effect (CALDWELL) 1924, 59, 661

Aspergillus oryzae, starch-liquefying activity, hydrogen ion concentration effect (MASLOW and DAVISON)

1926, 68, 83

Liver, blood sugar regulation, rôle (DAVENPORT) 1926, 70, 625

Malt, heat destruction (COOK)

1925, 65, 135

Pancreas, heat destruction (COOK)

1925, 65, 135

Amytal:

Anesthesia, insulin effect, metabolism (CHAMBERS, DEUEL, and MILHORAT) 1927, 75, 423

Metabolism influence (DEUEL, CHAMBERS, and MILHORAT)

1926, 69, 249

Anaphylactic shock:

Lymph, inorganic constituents (PETERSEN and HUGHES)

1925, 63, 179

Anemia:

- Blood protein distribution
(BODANSKY, MORSE,
KIECH, and BRAMKAMP)
1927, 74, 463
- plasma lipoids (BLOOR)
1925, 63, 1
- Cholesterol, blood, new
born mice (DE ABERLE,
HOSKINS, and BODAN-
SKY) 1927, 72, 643
- distribution (BODAN-
SKY)
1925, 63, lvi, 239
- esters, distribution
(BODANSKY)
1925, 63, lvi, 239
- Fatty acids, blood, new
born mice (DE ABERLE,
HOSKINS, and BODAN-
SKY) 1927, 72, 643
- —, unsaturated, distri-
bution (BODANSKY)
1925, 63, lvi, 239
- Lecithin, blood, new born
mice (DE ABERLE, HOS-
KINS, and BODANSKY)
1927, 72, 643
- Nutritional, inorganic iron
relation (MITCHELL and
VAUGHN)
1927, 74, lxxviii
1927, 75, 123
- , iron relation (MIT-
CHELL and SCHMIDT)
1926, 70, 471
- , milk diet, ash, plant
and animal tissues,
as corrective (HART,
ELVEHJEM, WADDELL,
and HERRIN)
1927, 72, 299
- , — —, soluble iron salts
as corrective (HART,
ELVEHJEM, WADDELL,
and HERRIN)
1927, 72, 299

Anemia—continued:

- Nutritional, whole milk
diet (HART, STEENBOCK,
ELVEHJEM, and WAD-
DELL) 1925, 65, 67
(HART, ELVEHJEM,
WADDELL, and HERRIN)
1927, 72, 299
 - , — —, inorganic iron
effect (HART, STEEN-
BOCK, ELVEHJEM, and
WADDELL)
1925, 65, 67
 - Pernicious, liver. I (COHN,
MINOT, FULTON, UL-
RICHS, SARGENT, WEARE,
and MURPHY)
1927, 74, lxi
- Anesthesia:**
- Acidosis (CULLEN, AUSTIN,
KORNBLUM, and ROBIN-
SON) 1923, 56, 625
(KOEHLER)
1924-25, 62, 435
 - , initial (CULLEN and
AUSTIN)
1923, 55, xlii
 - , mechanism (STEHLE
and BOURNE)
1924, 60, 17
 - Amytal, insulin effect,
metabolism (CHAMBERS,
DEUEL, and MILHORAT)
1927, 75, 423
 - Bromoform, bromine excre-
tion (LUCAS, BROWN,
and HENDERSON)
1927, 74, lxxix
 - Ether. I (SHAFFER and
RONZONI)
1923, 57, 741
 - II (RONZONI)
1923, 57, 761
 - III (RONZONI, KOECHIG,
and EATON)
1924, 61, 465

Anesthesia—continued:

Ether, acid-base balance,
blood, effect (VAN
SLYKE, AUSTIN, and
CULLEN)

1922, 53, 277

—, acidosis (LEAKE,
LEAKE, and KOEHLER)

1923, 56, 319

—, —, lactic acid rôle
(RONZONI, KOECHIG, and
EATON)

1924, 61, 465

—, alkali metabolism,
effect (STEHLE, BOURNE,
and BARBOUR)

1922, 53, 341

—, blood cholesterol
(MAHLER)

1926, 69, 653

—, breathing volume effect
(HAGGARD)

1924, 59, 795

— concentration, dogs
(RONZONI)

1923, 57, 761

—, morphine, alkali metab-
olism, effect (STEHLE,
BOURNE, and BARBOUR)

1922, 53, 341

Phosphate metabolism,
effect (BOLLIGER)

1926, 67, lvi

— —, relation (BOLLIGER)

1926, 69, 721

Tension, ether (HAGGARD)

1924, 59, 783

See also Narcosis.

Anhydremia:

Blood plasma proteins
(BODANSKY)

1926, 67, xxxviii

2,5-Anhydrogluconic acid:

Optical behavior (LEVENE)

1924, 59, 135

2,5-Anhydroglucose:

Optical behavior (LEVENE)

1924, 59, 135

2,5-Anhydromannonic acid:

Optical behavior (LEVENE)

1924, 59, 135

Anhydrostrophanthidin:

(JACOBS and COLLINS)

1924, 59, 713

Hydrogenation (JACOBS
and COLLINS)

1925, 63, 123

2,5-Anhydrosugar acids:

Optical rotation, ionization
effect (LEVENE and
BASS)

1927, 74, 727

2,5-Anhydrotetroxyadipic

acids:

Stereochemistry (LEVENE
and SIMMS)

1925, 63, 351

Animal:

Material, manganese
(LINDOW and PETERSON)

1927, 75, 169

Tissue, ash, nutritional
anemia, corrective
(HART, ELVEHJEM,
WADDELL, and HERRIN)

1927, 72, 299

—, iron (ELVEHJEM and
PETERSON)

1927, 74, 433

—, plant nucleotides
(JONES and PERKINS)

1924-25, 62, 291

Anions:

Blood serum, concentra-
tion (PINCUS and
KRAMER)

1923, 57, 463

Cerebrospinal fluid, con-
centration (PINCUS and
KRAMER)

1923, 57, 463

Anoxemia:

Acidosis production
(KOEHLER, BRUNQUIST,
and LOEVENHART)

1923, 55, ix

1925, 64, 313

Anoxemia—continued:

Blood plasma, acid-base equilibrium (PETERS, BULGER, EISENMAN, and LEE) 1926, 67, 175

Metabolism, effect (SCHNELLER, BRUNQUIST, and LOEVENHART) 1923, 55, iii

Nitrogen metabolism, effect (BRUNQUIST, SCHNELLER, and LOEVENHART) 1924-25, 62, 93

Oxygen, blood, partial pressure (GREENE and GREENE) 1922, 52, 137

Anthocyan:

Grapes, Clinton (ANDERSON and NABENHAUER) 1924, 61, 97

—, Concord (ANDERSON) 1923, 57, 795

—, Norton (ANDERSON) 1923, 57, 795

—, Seibel (ANDERSON) 1924, 61, 685

Anthocyanin:

Formation, sunflower (SANDO) 1925, 64, 71

Hemipterous families, coloration cause (PALMER and KNIGHT) 1924, 59, 451

Antiketogenesis:

See Ketogenesis.

Antimony:

Poisoning, subacute, nitrogen metabolism (PŘIBYL) 1927, 74, 775

Aphididae:

See Hemiptera.

Apparatus:

Arsenic determination, electro-Gutzeit (FINKE) 1927, 72, 737

Apparatus—continued:

Blood gas, manometric, carbon dioxide factors (VAN SLYKE and SENDROY) 1927, 73, 127

Calorimeter, portable, carbon dioxide determination (McCLENDON, HUMPHREY, and LOUCKS) 1926, 69, 513

—, —, oxygen determination (McCLENDON, HUMPHREY, and LOUCKS) 1926, 69, 513

Clark hydrogen electrode vessel, temperature control (CULLEN) 1922, 52, 521

Colorimeter, bicolorimetric (MYERS) 1922, 54, 675

Dialysis, continuous (HANKE and KOESSLER) 1925, 66, 495

Dialyzer, rotating (WRIGHT and RULE) 1927, 75, 185

Extraction, continuous (HANKE and KOESSLER) 1925, 66, 495

Gas analysis (CARPENTER) 1923, 55, xix

—, —, methane determination, metabolism experiments (CARPENTER and FOX) 1926, 70, 115

—, manometric, portable (VAN SLYKE) 1927, 73, 121

Hemoglobin determination (NEWCOMER) 1923, 55, 569

Hemoglobinometer (HASKINS and OSGOOD) 1926, 67, lx

Apparatus—continued:

Hydrogen ion concentration determination, micro vessel with electrode, blood and body fluids (DE EDS and HANZLIK)

1924, 60, 355

Lactic acid determination, condenser unit (DAVENPORT and COTONIO)

1927, 73, 359

Oxygen consumption, tissues, measurement (KOEHLER)

1925, 63, 475

Respiration, chamber, gas analysis apparatus for (CARPENTER)

1923, 55, xix

—, small animals (FOSTER and SUNDSTROEM)

1926, 69, 565

Respiratory quotient, small animals (WESSON)

1927, 73, 499

Specific gravity determination, densimeter (DU NOÛY)

1927, 74, 443

Van Slyke gas, trap (SHOHL)

1923, 56, 125

Appetite:

Energy and (COWGILL)

1926, 67, liii

Vitamin B relation (COWGILL, DEUEL, and SMITH)

1924, 59, xi

Apple:

Coating, wax-like, constituents (SANDO)

1923, 56, 457

Arabonic acid:

Galacto-, lactone formation, lactose structure, relation (LEVENE and WINTERSTEINER)

1927, 75, 315

Arachidonic acid:

Brain tissue, isolation (WESSON)

1924, 60, 183

Fatty acid metabolism, fatty acids, saturated, relation (WESSON)

1925, 65, 235

Arachin:

Nutritional deficiencies, chemical nature (JONES and WATERMAN)

1922, 52, 357

Arginase:

Arginine determination (HUNTER and DAUPHINEE)

1925, 63, xxxix

Characteristics (HUNTER and MORRELL)

1927, 74, lx

Arginine:

Creatine metabolism, relation (ROSE and COOK)

1925, 63, xvii

1925, 64, 325

Determination, arginase (HUNTER and DAUPHINEE)

1925, 63, xxxix

Growth relation (ROSE and COX)

1924, 59, xiv

1924, 61, 747

Histidine and, metabolism, interchangeability (ROSE and COX)

1926, 68, 217

—, separation (VICKERY and LEAVENWORTH)

1926, 68, 225

Arginine—continued:

Histidine, separation. II
(VICKERY and LEAVEN-
WORTH)

1927, 72, 403

III (VICKERY and
LEAVENWORTH)

1927, 75, 115

Preparation (VICKERY and
LEAVENWORTH)

1927, 75, 115

Purine metabolism, rela-
tion (ROSE and COOK)

1925, 63, xvii

1925, 64, 325

d-Arginine carbonate:

Preparation (PRATT)

1926, 67, 351

Aromatic acids:

Metabolism, comparative.
V (CERECEDO and SHER-
WIN)

1923-24, 58, 215

VII (CERECEDO and
SHERWIN)

1924-25, 62, 217

VIII (MUENZEN, CERE-
CEDO, and SHERWIN)

1926, 67, 469

IX (NOVELLO, MIRIAM,
and SHERWIN)

1926, 67, 555

X (MUENZEN, CERE-
CEDO, and SHERWIN)

1926, 68, 503

XI (MIRIAM, WOLF, and
SHERWIN)

1926-27, 71, 249

XII (MIRIAM, WOLF,
and SHERWIN)

1926-27, 71, 695

Aromatic cyanides:

Detoxication (ADELINE,
CERECEDO, and SHER-
WIN)

1926, 70, 461

Arrowroot:

Starch, raw, digestibility
(LANGWORTHY and
DEUEL)

1922, 52, 251

Arsenic:

Determination, body tis-
sues, electrolytic modifi-
cation, Gutzeit method
(LAWSON and SCOTT)

1925, 64, 23

—, insect tissue, electro-
Gutzeit apparatus (FINK)

1927, 72, 737

Poisoning, subacute, nitro-
gen metabolism (PRIBYL)

1927, 74, 775

Arsphenamine:

Properties (KOBEL)

1925, 63, lviii

Arthropod:

Creatinine, blood, absence
(MORGULIS)

1923, 55, xxxvi

Artichoke:

Inulin source (WILLAMAN)

1922, 51, 275

Asbestos:

Sodium hydroxide and,
carbon dioxide absorp-
tion, gravimetric me-
tabolism determination
(LEE and BROWN)

1927, 73, 69

Ascarite:

See Asbestos.

Ash:

Animal tissues, nutritional
anemia, corrective
(HART, ELVEHJEM,
WADDELL, and HERRIN)

1927, 72, 299

Bone, diet effect (DUT-
CHER, CREIGHTON, and
ROTHROCK)

1925, 66, 401

Ash—continued:

- Bone, growth (HAMMETT)
1925, 64, 409, 693
- , —, parathyroid gland
rôle (HAMMETT)
1927, 72, 505
- , —, thyroid gland rôle
(HAMMETT)
1927, 72, 505
- , irradiated rachitic
diet, effect (DUTCHER,
CREIGHTON, and ROTH-
ROCK) 1925, 66, 401
- , rachitic diet effect
(DUTCHER, CREIGHTON,
and ROTHROCK)
1925, 66, 401
- Femur, parathyroidectomy
effect (HAMMETT)
1923, 57, 285
- , thyroparathyroid-
ectomy effect (HAM-
METT) 1923, 57, 285
- Humerus, parathyroidec-
tomy effect (HAMMETT)
1923, 57, 285
- , thyroparathyroidec-
tomy effect (HAMMETT)
1923, 57, 285
- Plant tissues, nutritional
anemia, corrective
(HART, ELVEHJEM, WAD-
DELL, and HERRIN)
1927, 72, 299

Asparagine:

- Alfalfa juice (VICKERY)
1925, 65, 657

Asparagus officinalis:

- Seed, carbohydrate (CAKE
and BARTLETT)
1922, 51, 93

Aspartic acid:

- Determination, proteins
(JONES and MOELLER)
1927, 74, liv

Aspergillus oryzae:

- Amylase, starch-liquefying
activity, hydrogen ion
concentration effect
(MASLOW and DAVISON)
1926, 68, 83
- Dextrin hydrolysis (MAS-
LOW and DAVISON)
1926, 68, 75
- Dextrinase, dextrin-lique-
fying activity, hydrogen
ion concentration effect
(MASLOW and DAVISON)
1926, 68, 95
- Starch hydrolysis (MAS-
LOW and DAVISON)
1926, 68, 75

Asphyxia:

- Blood chemistry (COLLIP)
1927, 74, xxviii
- constituents, marine
fishes, influence (HALL,
GRAY, and LEPKOVSKY)
1926, 67, 549
- sugar changes, cod,
sculpin, and pollock
(MENTEN)
1927, 72, 249
- Hyperglycemia, drug rela-
tion (TATUM and ATKIN-
SON) 1922, 54, 331

Assimilation:

- Calcium (HUNT, WINTER,
and MILLER)
1923, 55, 739
- , butter fat influence
(BOGERT and TRAIL)
1922, 54, 387
- , clover and alfalfa hays,
comparison, dairy cows
(TURNER, HARDING, and
HARTMAN)
1927, 74, xxvii

Assimilation—continued:

- Calcium, dietary factors influencing. II (HART, STEENBOCK, HOPPERT, and HUMPHREY)
1922, 53, 21
- III (HART, STEENBOCK, HOPPERT, BETHEKE, and HUMPHREY)
1922, 54, 75
- IV (HART, STEENBOCK, HOPPERT, and HUMPHREY)
1923-24, 58, 43
- V (HART, STEENBOCK, and ELVEHJEM)
1924-25, 62, 117
- VI (STEENBOCK, HART, ELVEHJEM, and KLETZIEN)
1925, 66, 425
- VII (HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY)
1926, 67, 371
- VIII (HART, STEENBOCK, SCOTT, and HUMPHREY)
1926-27, 71, 263
- IX (HART, STEENBOCK, KLETZIEN, and SCOTT)
1926-27, 71, 271
- X (HART, STEENBOCK, SCOTT, and HUMPHREY)
1927, 73, 59
- , lactating animals, cod liver oil influence (HART, STEENBOCK, KLETZIEN, and SCOTT)
1926-27, 71, 271
- , yeast influence (BOGERT and TRAIL)
1922, 54, 387
- Iron, vitamin E relation (SIMMONDS, BECKER, and MCCOLLUM)
1927, 74, lxviii

Assimilation—continued:

- Magnesium, butter fat influence (BOGERT and TRAIL)
1922, 54, 753
- , yeast influence (BOGERT and TRAIL)
1922, 54, 753
- Phosphorus, butter fat influence (BOGERT and TRAIL)
1922, 54, 753
- , clover and alfalfa hays, comparison, dairy cows (TURNER, HARDING, and HARTMAN)
1927, 74, xxvii
- , yeast influence (BOGERT and TRAIL)
1922, 54, 753

Asteriasterol:

- Starfish (PAGE)
1923, 57, 471

Atrophy:

- Muscle tissue (CHEN, MEEK, and BRADLEY)
1924, 61, 807

Atropine:

- Bile salt metabolism, influence (SMYTH and WHIPPLE)
1924, 59, 655

Autolysis:

- VIII (BRADLEY)
1922, 52, 467
- IX (SEVRINGHAUS, KOEHLER, and BRADLEY)
1923, 57, 163
- X (CHEN and BRADLEY)
1924, 59, 151
- XI (HERTZMAN and BRADLEY)
1924, 61, 275
- XII (CHEN, MEEK, and BRADLEY)
1924, 61, 807

Autolysis—continued:

XIII (HERTZMAN and
BRADLEY)

1924-25, 62, 231

Acidity rise (MORSE)

1923, 55, viii

Bacillus coli communis,
autolytic power (YOUNG)

1927, 74, lxii

Enzymes, nature (BRAD-
LEY)

1922, 52, 467

Hydrogen ion concentra-
tion in (SEVRINGHAUS,
KOEHLER, and BRADLEY)

1923, 57, 163

Inhibition, protein (HERTZ-
MAN and BRADLEY)

1925, 63, xxxvii

Insect metamorphosis and
(BISHOP)

1923-24, 58, 567

Kinetics of autolytic
mechanism (HERTZMAN
and BRADLEY)

1924-25, 62, 231

Liver, acids formed in
(SEVRINGHAUS)

1923, 57, 181

—, phosphoric acid libera-
tion (SEVRINGHAUS)

1923, 57, 191

Muscle (CHEN and BRAD-
LEY)

1924, 59, 151

Protein inhibition (HERTZ-
MAN and BRADLEY)

1925, 63, xxxvii

Avena sativa:

See Oat.

B

Bacillus:

Friedländer. See Fried-
länder bacillus.

Tubercle. See Tubercle
bacillus.

Bacillus abortus:

Albumin, blood plasma,
injection effect (HOWE
and SANDERSON)

1924-25, 62, 767

Globulin, blood plasma,
injection effect (HOWE
and SANDERSON)

1924-25, 62, 767

Bacillus acetoethylicum:

Acetone formation, sugars
(SPEAKMAN)

1925, 64, 41

Bacillus coli:

Glucose-fermenting action,
insulin influence
(McGUIRE and FALK)

1924, 60, 489

Bacillus coli communis:

Autolytic power (YOUNG)

1927, 74, lxii

Bacillus granulobacter pec-
tinovorum:

Acid production by
(SPEAKMAN)

1923-24, 58, 395

Pentose fermentation
(PETERSON, FRED, and
SCHMIDT)

1924, 60, 627

Bacillus lactis aerogenes:

Chemical study (HETTLER)

1927, 72, 573

Bacteria:

Chemical study. XII
(COGHILL)

1926, 70, 439

XIII (COGHILL)

1926, 70, 449

XIV (HETTLER)

1927, 72, 573

Deamination, physiological
significance (SPEAKMAN)

1926, 67, xvii

Glucose decomposition
(YOUNG)

1924, 59, xliii

Bacteria—continued:

Growth-promoting substance from (DAMON)
1923, 56, 895

Hypoglycemia-producing substance in (LITTLE, LEVINE, and BEST)
1924, 59, xxxvii

Intestine, normal, toxic amine formation (HANKS and KOESSLER)
1924, 59, 835

Lactic acid production (PEDERSON, PETERSON, and FRED)
1926, 68, 151

Mannitol-forming, fermentation products (STILES, PETERSON, and FRED)
1925, 64, 643

Pentose-fermenting, hexose fermentation (PETERSON, FRED, and ANDERSON)
1922, 53, 111

Vitamin B, biological test, effect (HELLER, McELROY, and GARLOCK)
1925, 65, 255

Banana:

Gel and sucrase (FALK and McGUIRE)
1922, 54, 655

Barbituric acid:

Iso-, oxidation (DAVIDSON and BAUDISCH)
1925, 64, 619

Bark:

Locust, albumin, amino acids (JONES, GERSDORFF, and MOELLER)
1925, 64, 655

—, —, composition (JONES, GERSDORFF, and MOELLER)
1925, 64, 655

Bark—continued:

Locust, albumin, nitrogen distribution (JONES, GERSDORFF, and MOELLER)
1925, 64, 655

—, —, properties (JONES, GERSDORFF, and MOELLER)
1925, 64, 655

—, proteins (JONES and GERSDORFF)
1925, 63, xlv

I (JONES, GERSDORFF, and MOELLER)
1925, 64, 655

—, —, enzymes with (JONES, GERSDORFF, and MOELLER)
1925, 64, 655

Baryta:

Creatinine decomposition (GAEBLER)
1926, 69, 613

Basal metabolism:

Children (SANDIFORD and HARRINGTON)
1925, 63, xxxv

—, factors influencing (MacLEOD and ROSE)
1926, 67, xix

—, undernourished (WANG, KERN, FRANK, and DUNWIDDIE)
1925, 63, lxi

Comparison of standards (BOOTHBY and SANDIFORD)
1922, 54, 767

Girls (BLUNT, TILT, McLAUGHLIN, and GUNN)
1926, 67, 491

Light effect (EICHELBERGER)
1926, 69, 17

Menstrual cycle (WAKEHAM)
1923, 56, 555

Basal metabolism—continued:

- Pregnancy (ROWE, AL-
COTT, and MORTIMER)
1924, 59, xli
(SANDIFORD and
WHEELER)
1924-25, 62, 329
- Standards (BOOTHBY and
SANDIFORD)
1922, 54, 783
- Urine pigment, normal,
output, relationship
(DRABKIN)
1927, 75, 481

Base(s):

- Acid-base balance, base in-
gestion effect (KOEHLER)
1927, 72, 99
- Alkaline reserve, blood,
diuresis loss, effect
(HENDRIX and CALVIN)
1925, 65, 197
- Balance, determination
(SHOHL and SATO)
1923-24, 58, 235
- Biological materials, deter-
mination, micro (STADIE
and ROSS)
1925, 65, 735
- Blood, determination,
micro (STADIE and ROSS)
1925, 65, 735
- plasma, concentration
(PETERS, BULGER,
EISENMAN, and LEE)
1926, 67, 141
- serum, determination,
micro (STADIE and ROSS)
1925, 65, 735
- Combining properties,
blood. II (STADIE and
ROSS) 1926, 68, 229
- — —, thermodynamic
relations (STADIE and
MARTIN)
1924, 60, 191

Base(s)—continued:

- Determination, micro,
biological materials
(STADIE and ROSS)
1925, 65, 735
- , —, blood (STADIE and
ROSS) 1925, 65, 735
- , —, — serum (STADIE
and ROSS)
1925, 65, 735
- Diuresis loss (HENDRIX
and CALVIN)
1925, 65, 197
- —, alkali reserve, blood,
effect (HENDRIX and
CALVIN)
1925, 65, 197
- Excretion, acidosis, dia-
betes (HENDRIX, FAY,
CALVIN, and BODANSKY)
1926, 69, 449
- , uranium nephritis,
acidosis relation (HEN-
DRIX and BODANSKY)
1924, 60, 657
- , — —, hyperglycemia
relation (HENDRIX and
BODANSKY)
1924, 60, 657
- Fixed, excretion, acid
administration effect
(FISKE and SOKHEY)
1925, 63, 309
- , metabolism, during
fasting (GAMBLE, ROSS,
and TISDALL)
1923, 57, 633
- Forming diets, calcium me-
tabolism, effect (BOGERT
and KIRKPATRICK)
1922, 54, 375
- elements, foods (CLARK)
1925, 65, 597
1927, 73, 389
- Hemoglobin and, relation
(ADAIR)
1925, 63, 517

Base(s)—continued:

Hemoglobin-bound, osmotic pressure (AUSTIN, SUNDERMAN, and CAMACK)

1926, 70, 427

Total, determination, gasometric, micro, blood serum (VAN SLYKE, HILLER, and BERTHELSEN)

1927, 74, 659

—, —, urine (FISKE)

1922, 51, 55

Basic substance:

Alfalfa juice, presence (LEAVENWORTH, WAKEMAN, and OSBORNE)

1923-24, 58, 209

Bean:

Adzuki, *Phaseolus angularis*, protein (JONES, FINKS, and GERSDORFF)

1922, 51, 103

Jack, *Canavalia ensiformis*, globulins. II (SUMNER and GRAHAM)

1925, 64, 257

—, proteins, urease (SUMNER, GRAHAM, and NOBACK)

1924, 59, xx

—, urease (SUMNER and GRAHAM)

1925, 63, xliii

Lima, *Phaseolus lunatus*, proteins (JONES, GERSDORFF, JOHNS, and FINKS)

1922, 53, 231

Mung, nutritive properties (HELLER)

1927, 75, 435

Navy, *Phaseolus vulgaris*, conphaseolin (WATERMAN, JOHNS, and JONES)

1923, 55, 93

Soy, blood, effect (HORVATH)

1926, 68, 343

Bean—continued:

Soy, cephalin (LEVENE and ROLF)

1924-25, 62, 759

1926, 68, 285

—, cuorin (LEVENE and ROLF)

1926, 68, 285

—, curd, protein, maintenance value (ROSE and MACLEOD)

1925, 66, 847

—, lecithin (LEVENE and ROLF)

1924-25, 62, 759

1926, 68, 285

—, —, brominated, fractionation (LEVENE and ROLF)

1925, 65, 545

—, protein, sodium hydroxide-extracted, nitrogen distribution (FRIEDEMANN)

1922, 51, 17

Velvet, Chinese, protein, nutrition value (JONES, FINKS, and WATERMAN)

1922, 52, 209

—, Georgia, protein, nutrition value (JONES, FINKS, and WATERMAN)

1922, 52, 209

Bee:

Honey, body fluid, larval activity, buffer value changes (BISHOP)

1923-24, 58, 543

—, —, —, activity, carbon dioxide capacity changes (BISHOP)

1923-24, 58, 543

—, —, —, activity, hydrogen ion concentration changes (BISHOP)

1923-24, 58, 543

Bee—continued:

Honey, body fluid, larval activity, osmotic pressure changes (BISHOP)

1923-24, 58, 543

—, — —, — activity, oxygen capacity changes (BISHOP)

1923-24, 58, 543

—, — —, — activity, specific gravity changes (BISHOP)

1923-24, 58, 543

—, — —, metamorphosis, buffer value changes (BISHOP)

1923-24, 58, 543

—, — —, —, carbon dioxide capacity changes (BISHOP)

1923-24, 58, 543

—, — —, —, hydrogen ion concentration changes (BISHOP)

1923-24, 58, 543

—, — —, —, osmotic pressure changes (BISHOP)

1923-24, 58, 543

—, — —, —, oxygen capacity changes (BISHOP)

1923-24, 58, 543

—, — —, —, specific gravity changes (BISHOP)

1923-24, 58, 543

—, larva, body fluid. I (BISHOP)

1923-24, 58, 543

II (BISHOP, BRIGGS, and RONZONI)

1925, 66, 77

Bell-Doisy:

Phosphate method, modification (BRIGGS)

1922, 53, 13

Phosphates, blood plasma (DENIS and VON MEYSENBUG)

1922, 52, 1

Bell-Doisy—continued:

Phosphoric acid, lipid, blood, determination (RANDLES and KNUDSON) 1922, 53, 53

Bence-Jones:

Protein. See Protein.

Benedict:

Blood sugar, Folin-Wu method, comparison (CSONKA and TAGGART) 1922, 54, 1

— — method (ROCKWOOD) 1926, 69, 187

Sugar method, blood, Folin-Wu, comparison (LYTTLE and HEARN) 1926, 68, 751

— —, cerebrospinal fluid, Folin-Wu, comparison (LYTTLE and HEARN) 1926, 68, 751

Benzaldehyde:

Menthone and, dismutation, menthone-menthol relations, *Mentha piperita*, significance (GORDON)

1927, 75, 163

Benzene:

Vitamin B solubility (WILLIAMS and WATERMAN) 1926, 68, 499

Benidine:

Color reactions (CLARK, COHEN, and GIBBS) 1926, 67, x

Benzoate(s):

Hippuric acid elimination, amino acid influence after administration of (GRIFFITH and LEWIS) 1923, 57, 1

— — —, protein influence after administration of (GRIFFITH and LEWIS) 1923, 57, 697

Benzoate(s)—continued:

Hippuric acid synthesis,
amino acid influence after
administration of (GRIF-
FITH and LEWIS)

1923, 57, 1

— — —, protein influence
after administration of
(GRIFFITH and LEWIS)

1923, 57, 697

Kidney function test
(KINGSBURY)

1923, 55, xxi

Benzoic acid:

Conjugation, dog (QUICK)

1926, 67, 477

Detoxication, man
(BRAKEFIELD)

1927, 74, 783

Halogen derivatives, fate,
body (NOVELLO, MIR-
IAM, and SHERWIN)

1926, 67, 555

Insulin concentration by
adsorption (MOLONEY
and FINDLAY)

1923, 57, 359

Proteins administered with
(CSONKA) 1924, 60, 545

Respiratory metabolism,
influence (RAPPORT,
WEISS, and CSONKA)

1924, 60, 583

Benzoyl glycuronic acid:

Preparation (QUICK)

1926, 69, 549

**Benzylidene-ethyl-chitosamin-
ate:**

(LEVENE)

1922, 53, 449

**Benzylidene-ethyl-diazoglucon-
ate:**

(LEVENE)

1922, 53, 449

**Benzylidene-1-ethyl-2-diazo-
gluconate:**

(LEVENE)

1922, 54, 809

Beriberi:

Nursing young, diet satis-
factory for growth (SURE
and SCHILLING)

1927, 74, lxxiv

Betaine:

Alfalfa juice (VICKERY)

1925, 65, 81

Bicarbonate:

Blood, determination (VAN
SLYKE)

1922, 52, 495

—, hydrogen ion concentra-
tion relation (PETERS,
EISENMAN, and BULGER)

1923, 55, 709

—, oxygenation effect
(VAN SLYKE, HASTINGS,
and NEILL)

1922, 54, 507

—, reduction effect (VAN
SLYKE, HASTINGS, and
NEILL)

1922, 54, 507

— plasma, determination
(VAN SLYKE)

1922, 52, 495

-Carbon dioxide ratio,
hydrogen ion concentra-
tion, blood, carcinoma
(CHAMBERS and KLEIN-
SCHMIDT)

1923, 55, 257

Determination, blood (VAN
SLYKE)

1922, 52, 495

—, — plasma (VAN SLYKE)

1922, 52, 495

Urine (GAMBLE)

1922, 51, 295

Bicarbonate ion:

Activity coefficient, cyan-
hemoglobin solutions
(STADIE and HAWES)

1927, 74, xxxi

— —, hemoglobin solutions
(STADIE and HAWES)

1927, 74, xxxi

Bicarbonate ion—continued:

Activity coefficient, methemoglobin solutions
(STADIE and HAWES)

1927, 74, xxxi

—, nitric oxide solutions
(STADIE and HAWES)

1927, 74, xxxi

Blood, oxygenated, distribution (VAN SLYKE, HASTINGS, MURRAY, and SENDROY)

1925, 65, 701

—, reduced, distribution (VAN SLYKE, HASTINGS, MURRAY, and SENDROY)

1925, 65, 701

— plasma, kidney function influence (MURRAY and HASTINGS)

1925, 65, 265

—, respiration influence (MURRAY and HASTINGS)

1925, 65, 265

Equilibrium determination (KUGELMASS and SHOHL)

1923-24, 58, 649

Bile:

Biliverdin isolation from (BARRY and LEVINE)

1923, 55, xxxvii

Components, obstructive jaundice, elimination (BRAKEFIELD and SCHMIDT)

1926, 67, 523

—, —, synthesis (BRAKEFIELD and SCHMIDT)

1926, 67, 523

Fecal lipids, relation (SPERRY)

1926-27, 71, 351

Fistula, chloroform influence (SMYTH and WHIPPLE)

1924, 59, 623

Bile—continued:

Fistula, phosphorus influence (SMYTH and WHIPPLE)

1924, 59, 623

Protein matter (LOGAN)

1923-24, 58, 17

Sterol metabolism, fecal lipids, relation (SPERRY)

1926-27, 71, 351

Bile acids:

Determination, urine (SCHMIDT and MERRILL)

1923-24, 58, 601

—, —, icterus (SCHMIDT and MERRILL)

1923, 55, xx

Bile pigments:

Hydrogen dioxide action (VON OETTINGEN and SOLLMANN)

1927, 72, 635

Mercuric chloride action (VON OETTINGEN and SOLLMANN)

1927, 72, 635

Oxidation (BARRY and LEVINE)

1924, 59, lii

Reduction (BARRY and LEVINE)

1924, 59, lii

Bile salt(s):

Determination, colorimetric, blood (TASHIRO)

1925, 63, lxiv

Metabolism. I (SMYTH and WHIPPLE)

1924, 59, 623

II (SMYTH and WHIPPLE)

1924, 59, 637

III (SMYTH and WHIPPLE)

1924, 59, 647

IV (SMYTH and WHIPPLE)

1924, 59, 655

Metabolism, cod liver effect (SMYTH and WHIPPLE)

1924, 59, 647

Bile salt(s)—continued:

Metabolism, drugs effect
(SMYTH and WHIPPLE)

1924, 59, 655

—, fish feeding effect
(SMYTH and WHIPPLE)

1924, 59, 647

—, gelatin effect (SMYTH
and WHIPPLE)

1924, 59, 647

—, meat extracts effect
(SMYTH and WHIPPLE)

1924, 59, 647

—, proteose intoxication,
effect (SMYTH and WHIP-
PLE)

1924, 59, 637

—, Roentgen ray intoxica-
tion, effect (SMYTH and
WHIPPLE)

1924, 59, 637

—, thyroid extract effect
(SMYTH and WHIPPLE)

1924, 59, 637

—, thyroxine effect (SMYTH
and WHIPPLE)

1924, 59, 637

—, yeast effect (SMYTH and
WHIPPLE)

1924, 59, 647

Biliverdin:

Isolation, bile (BARRY and
LEVINE)

1923, 55, xxxvii

Bioelectric currents:

(BEUTNER and MENITOFF)

1927, 72, 759

Biological fluids:

Calcium carbonate solubil-
ity (HASTINGS, MURRAY,
and SENDROY)

1926-27, 71, 723

— phosphate solubility
(SENDROY and HAST-
INGS)

1926-27, 71, 783

New-glucose determination
(LUNDSGAARD and HOL-
BØLL)

1926, 68, 457

Biological material:

Base, micro determination
(STADIE and ROSS)

1925, 65, 735

Iron determination
(ELVEHJEM and HART)

1926, 67, 43

Lead determination, elec-
trolytic (MINOT)

1923, 55, 1

Biological reaction:

Protein, vegetable (LEWIS
and WELLS)

1925, 66, 37

Biological test:

Calcium-depositing sub-
stances (MCCOLLUM,
SIMMONDS, SHIPLEY,
and PARK)

1922, 51, 41

Vitamin B, bacterial flora
effect (HELLER, McEL-
ROY, and GARLOCK)

1925, 65, 255

Biological value:

Determination, protein
(MITCHELL)

1923-24, 58, 873

Eggs, proteins, growth
(MITCHELL and CAR-
MAN)

1924, 60, 613

—, —, maintenance (MIT-
CHELL and CARMAN)

1924, 60, 613

Nitrogen, flour, patent
white, mixtures (MIT-
CHELL and CARMAN)

1926, 68, 183

—, foods, animal (MIT-
CHELL and CARMAN)

1926, 68, 183

Pork, proteins, growth
(MITCHELL and CAR-
MAN)

1924, 60, 613

—, —, maintenance
(MITCHELL and CAR-
MAN)

1924, 60, 613

Biological value—continued:

Proteins, determination
(MITCHELL)

1923-24, 58, 873

—, different intake levels
(MITCHELL)

1923-24, 58, 905

Wheat, whole, proteins,
growth (MITCHELL and
CARMAN)

1924, 60, 613

—, —, —, maintenance
(MITCHELL and CAR-
MAN)

1924, 60, 613

Bionic acid:

Aldose oxidation, prepara-
tion from (GOEBEL)

1927, 72, 809

Bios:

Bakers' yeast requirement
(WILLAMAN and OLSEN)

1923, 55, 815

Yeast growth (FULMER and
NELSON)

1922, 51, 77

— synthesis, purified nutri-
ents (MACDONALD)

1923, 56, 489

Biuret reaction:

Glycerol interference
(SEIBERT and LONG)

1925, 64, 229

Blackberry:

Rubus argutus, inositol
(SANDO)

1926, 68, 403

Blood:

Acetaldehyde (GEE and
CHAIKOFF)

1926, 70, 151

—, identification (GEE and
CHAIKOFF)

1926, 70, 151

Acetone bodies (HUBBARD
and NOBACK)

1925, 63, 391

Blood—continued:

Acetone bodies, determina-
tion, colorimetric (BEHRE
and BENEDICT)

1926, 70, 487

—, ketogenic diet effect
(McQUARRIE and
KEITH)

1927, 74, xvi

Acid, carbon dioxide, and
oxygen, interaction
(HILL)

1922, 51, 359

Acid-base balance, alcohol
effect (LAMSON and
WING)

1926, 69, 349

—, carbon tetrachloride
effect (LAMSON and
WING)

1926, 69, 349

—, disease (MYERS
and BOOHER)

1924, 59, xxiii. 699

—, ether anesthesia
effect (VAN SLYKE,
AUSTIN, and CULLEN)

1922, 53, 277

— equilibria, alkali effect
(MYERS and MUNT-
WYLER)

1927, 74, xxxiv

— equilibrium (HAWKINS)

1924, 61, 147

—, hemorrhage, changes
(BENNETT)

1926, 69, 675

—, pyloric obstruction
(FELTY and MURRAY)

1923, 57, 573

Acid-combining properties.
II (STADIE and ROSS)

1926, 68, 229

Acidosis, diabetes, insulin
treatment (CULLEN and
JONAS)

1923, 57, 541

Blood—continued:

- Acidosis, ether, electrolyte changes (AUSTIN, CULLEN, GRAM, and ROBINSON) 1924, 61, 829
- Adenine nucleotide (JACKSON) 1923, 57, 121
- —, isolation (HOFFMAN) 1925, 63, 675
- Alkali reserve, base loss, diuresis, effect (HENDRIX and CALVIN) 1925, 65, 197
- , titratable, determination (GREENWALD and LEWMAN) 1922, 54, 263 (SUMNER and HUBBARD) 1923, 56, 701
- Alligator, nitrogen distribution (HOPPING and SCOTT) 1923, 55, xxxiii
- Amino acid (GREENE, SANDIFORD, and ROSS) 1923-24, 58, 845
- — nitrogen (OKADA and HAYASHI) 1922, 51, 121
- I (BLAU) 1923, 56, 861
- II (BLAU) 1923, 56, 867
- III (BLAU) 1923, 56, 873
- — —, determination, colorimetric (FOLIN) 1922, 51, 377
- — —, metabolism, myelogenous leucemia, relation (SANDIFORD, BOOTHBY, and GIFFIN) 1923, 55, xxiii
- — —, total free (BLAU) 1923, 56, 861

Blood—continued:

- Amino acid, pathological conditions (GREENE, SANDIFORD, and ROSS) 1923-24, 58, 845
- Ammonia (NASH and BENEDICT) 1922, 51, 183
- determination, micro (GAD-ANDRESEN) 1922, 51, 367
- Analysis. III (FOLIN) 1922, 51, 377
- IV (FOLIN) 1922, 54, 153
- V (FOLIN and TRIMBLE) 1924, 60, 473
- , sodium tungstate quality (FOLIN) 1922, 51, 419
- , technique (AUSTIN, CULLEN, HASTINGS, McLEAN, PETERS, and VAN SLYKE) 1922, 54, 121
- Arterial-venous, differences (PETERS, BULGER, and EISENMAN) 1926, 67, 165
- , relation (DOISY and BECKMANN) 1922, 54, 683
- , similar gas content, method of obtaining (GOLDSCHMIDT and LIGHT) 1925, 63, xxxviii 1925, 64, 53
- Arthropod, creatinine absence (MORGULIS) 1923, 55, xxxvi
- Asphyxia effect (COLLIP) 1927, 74, xxviii
- Base, micro determination (STADIE and ROSS) 1925, 65, 735

Blood—continued:

- Base-combining properties. II (STADIE and ROSS) 1926, 68, 229
- —, thermodynamic relations (STADIE and MARTIN) 1924, 60, 191
- Bee, honey, larva (BISHOP, BRIGGS, and RONZONI) 1925, 66, 77
- , —, —, osmotic effects (BISHOP, BRIGGS, and RONZONI) 1925, 66, 77
- Beef. I (ROBINSON and HUFFMAN) 1926, 67, 245
- II (ROBINSON and HUFFMAN) 1926, 67, 257
- III (HUFFMAN and ROBINSON) 1926, 69, 101
- Bicarbonate, determination (VAN SLYKE) 1922, 52, 495
- Bicarbonate-hydrogen ion concentration curve (PETERS, EISENMAN, and BULGER) 1923, 55, 709
- Bicarbonate, oxygenation effect (VAN SLYKE, HASTINGS, and NEILL) 1922, 54, 507
- , reduction effect (VAN SLYKE, HASTINGS, and NEILL) 1922, 54, 507
- Bile salts, determination, colorimetric (TASHIRO) 1925, 63, lxiv
- Buffer value, oxygenation effect (VAN SLYKE, HASTINGS, and NEILL) 1922, 54, 507

Blood—continued:

- Buffer value, reduction effect (VAN SLYKE, HASTINGS, and NEILL) 1922, 54, 507
- Buffers, evaluation (DOISY, BRIGGS, EATON, and CHAMBERS) 1922, 54, 305
- Calcium, antirachitic vitamin criterion (STEENBOCK, HART, JONES, and BLACK) 1923-24, 58, 59
- compounds, nature (GREENWALD) 1926, 67, 1
- —, tetany, relation (GREENWALD) 1926, 67, 1
- determination, colorimetric (ROE and KAHN) 1926, 67, 585
- —, oxalated (ROTHWELL) 1927, 74, 257
- , inorganic phosphorus, relation (GROLLMAN) 1927, 72, 565
- intake and fat-soluble vitamin, relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71
- , parathyroid hormone regulation (COLLIP) 1925, 63, 395
- , — relation (GREENWALD) 1926, 67, xxxv
- , — tetany (CAMERON and MOORHOUSE) 1925, 63, 687
- , pregnancy (UNDERHILL and DIMICK) 1923-24, 58, 133

Blood—continued:

Calcium, spinal cord section, effect (HESS, BERG, and SHERMAN)

1927, 74, xxvii

—, sympathetic section effect (HESS, BERG, and SHERMAN)

1927, 74, xxvii

Calf (ROBINSON and HUFFMAN)

1926, 67, 257

—, milk diet (HUFFMAN and ROBINSON)

1926, 69, 101

—, — — and supplements (HUFFMAN and ROBINSON)

1926, 69, 101

Capillary exchange (HENDERSON and MURRAY)

1925, 65, 407

—, method of obtaining (DRUCKER and CULLEN)

1925, 64, 221

Carbohydrates, disappearance rate (REINHOLD and KARR)

1927, 72, 345

Carbon dioxide (LUNDGAARD and MÖLLER)

1923, 55, 315

— — absorption curve. I (PETERS, BULGER, and EISENMAN)

1923, 55, 687

II (PETERS, EISENMAN, and BULGER)

1923, 55, 709

III (PETERS)

1923, 56, 745

IV (PETERS, BULGER, and EISENMAN)

1923-24, 58, 747

V (PETERS, BULGER, and EISENMAN)

1923-24, 58, 769

VI (PETERS, BULGER, and EISENMAN)

1923-24, 58, 773

Blood—continued:

Carbon dioxide absorption curve, acid-base-protein equilibrium, temperature effect (STADIE, AUSTIN, and ROBINSON)

1925, 66, 901

— —, acid, and oxygen, interaction (HILL)

1922, 51, 359

— —, arterial (STEWART)

1924-25, 62, 641

— —, blood plasma carbon dioxide, relation (PETERS, BULGER, and EISENMAN)

1923-24, 58, 773

— —, carbon dioxide and oxygen tension effect (PETERS, CULLEN, and AUSTIN)

1922, 54, 149

— — curves, hemoglobin and sodium bicarbonate mixture (ADAIR)

1925, 63, 515

— — determination, micro (RAFFEL)

1927, 74, 839

— — dissociation curves (BOCK, FIELD, and ADAIR)

1924, 59, 353

— — equilibrium, arterial (BOCK and FIELD)

1924-25, 62, 269

II (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK)

1927, 74, 303

III (DILL, LAWRENCE, HURXTHAL, and BOCK)

1927, 74, 313

— — —, —, exercising subjects (DILL, LAWRENCE, HURXTHAL, and BOCK)

1927, 74, 313

Blood—continued:

- Carbon dioxide equilibrium, arterial, resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK) 1927, 74, 303
- —, exercise effect (LUNDGAARD and MÖLLER) 1923, 55, 315, 477
- —, venous (STEWART) 1924-25, 62, 641
- dioxide-combining power, tumor passage effect (CORI and CORI) 1925, 65, 397
- monoxide determination, gasometric (VAN SLYKE and ROBSCHT-ROBBINS) 1927, 72, 39
- Chlorides, determination (FRIEND) 1922, 51, 115
- (VAN SLYKE) 1923-24, 58, 523
- —, colorimetric (ISAACS) 1922, 53, 17
- —, —, Isaacs' modification (DUPRAY) 1923-24, 58, 675
- —, sources of error (GREENWALD and GROSS) 1922, 54, 589
- , histamine effect (DRAKE and TISDALL) 1926, 67, 91
- , inorganic, intravenous injection effect (WHELAN) 1925, 63, 585
- introduction effect (UNDERHILL and WAKEMAN) 1922, 54, 701

Blood—continued:

- Chlorides introduction, nephritis, effect (UNDERHILL and WAKEMAN) 1922, 54, 701
- , methods (SHORT and GELLIS) 1927, 73, 219
- , pathological conditions (GRAM) 1924, 61, 337
- , pyloric obstruction (FELTY and MURRAY) 1923, 57, 573
- Cholesterol (BAUMANN and HOLLY) 1923, 55, 457
- determination (LEIBOFF) 1924, 61, 177
- —, Bloor modified method (SACKETT) 1925, 64, 203
- —, colorimetric (DE TONI) 1926, 70, 207
- , ether anesthesia (MAHLER) 1926, 69, 653
- , inherited anemia, new born mice (DE ABERLE, HOSKINS, and BODANSKY) 1927, 72, 643
- , suprarenalectomy effect (BAUMANN and HOLLY) 1923, 55, 457
- variations, pregnancy (BAUMANN and HOLLY) 1924, 59, xxv
- Circulation and oxygen exchange (MURRAY and MORGAN) 1925, 65, 419
- Clotting time, food ingestion effect (MILLS) 1923, 55, xviii

Blood—continued:

- Coagulation. I (LOEB, FLEISHER, and TUTTLE)
1922, 51, 461
- II (LOEB, FLEISHER, and TUTTLE)
1922, 51, 485
- , erythrocyte stroma and tissue extract, effect (LOEB, FLEISHER, and TUTTLE)
1922, 51, 485
- , hydrogen ion concentration changes (HIRSCH)
1924, 61, 795
- Collection, technique (AUSTIN, CULLEN, HASTINGS, McLEAN, PETERS, and VAN SLYKE)
1922, 54, 121
- Component, new (ROCKWOOD and TURNER)
1927, 74, xvii
- Composition, dog (HADEN and ORR)
1925, 65, 479
- Concentration, histamine influence (UNDERHILL and ROTH)
1922, 54, 607
- , hydrazine influence (UNDERHILL and KARELITZ)
1923-24, 58, 147
- , pilocarpine influence (UNDERHILL and ROTH)
1922, 54, 607
- , water deprivation influence (UNDERHILL and ROTH)
1922, 54, 607
- , — introduction effect (UNDERHILL and KAP-SINOW)
1922, 54, 459
- Conductance, Breit's formula (McCLENDON)
1924, 59, lvi

Blood—continued:

- Conductivity, electrical (GRAM)
1924, 59, 33
- (McCLENDON)
1926, 68, 653
- , —, alternating currents (McCLENDON)
1926, 69, 733
- Cow, calving effect (ROBINSON and HUFFMAN)
1926, 67, 257
- Crawfish (MORGULIS)
1923, 55, xxxiv
- , creatinine absence (MORGULIS)
1923, 55, xxxvi
- Creatine (BEHRE and BENEDICT)
1922, 52, 11
- Creatinine (BEHRE and BENEDICT)
1922, 52, 11
- (GAEBLER and KEITCH)
1927, 74, xx
- absence, arthropod (MORGULIS)
1923, 55, xxxvi
- Cutaneous (capillary), method of obtaining (DRUCKER and CULLEN)
1925, 64, 221
- Defibrination, anaerobic (EISENMAN)
1926-27, 71, 607
- Density, respiratory gases, effect (HAMILTON and BARBOUR)
1927, 74, 553
- Diamino nitrogen (BLAU)
1923, 56, 867
- Digestion changes (MORGULIS)
1925, 66, 353
- Drug effect. I (ATKINSON and ETS)
1922, 52, 5

Blood—continued:

- Electric capacity, alternating currents (McCLEN-
DON) 1926, 69, 733
- Electrolyte changes, acidosis, ether (AUSTIN,
CULLEN, GRAM, and
ROBINSON) 1924, 61, 829
- distribution (VAN
SLYKE, WU, and Mc-
LEAN) 1923, 56, 765
(VAN SLYKE and HAST-
INGS) 1925, 63, xiii
- equilibrium. I (AUSTIN,
CULLEN, HASTINGS,
MCLEAN, PETERS, and
VAN SLYKE) 1922, 54, 121
- II (PETERS, CULLEN,
and AUSTIN) 1922, 54, 149
- III (VAN SLYKE, HAST-
INGS, HEIDELBERGER,
and NEILL) 1922, 54, 481
- IV (VAN SLYKE, HAST-
INGS, and NEILL) 1922, 54, 507
- V (VAN SLYKE, WU, and
MCLEAN) 1923, 56, 765
- VI (HASTINGS, VAN
SLYKE, NEILL, HEIDEL-
BERGER, and HARING-
TON) 1924, 60, 89
- VII (HASTINGS, SEND-
ROY, MURRAY, and
HEIDELBERGER) 1924, 61, 317
- VIII (VAN SLYKE, HAST-
INGS, MURRAY, and
SENDROY) 1925, 65, 701

Blood—continued:

- Electrolytes, electrochemi-
cal study (NEUHAUSEN
and MARSHALL) 1922, 53, 365
- , potassium oxalate
effect (EISENMAN) 1926-27, 71, 587
- Ether effect (ATKINSON and
ETS) 1922, 52, 5
- in arterial, and in cen-
tral nervous system,
relation (HAGGARD) 1924, 59, 771
- Ethyl ether, determination
(HAGGARD) 1923, 55, 131
(SHAFFER and RONZONI) 1923, 57, 741
- — distribution ratio be-
tween air and (SHAFFER
and RONZONI) 1923, 57, 741
- iodide determination
(STARR and GAMBLE) 1926-27, 71, 509
- Exercise effect (BARR and
HIMWICH) 1923, 55, 525
(RAKESTRAW) 1923, 56, 121
- Fasting, changes (MOR-
GULIS and EDWARDS) 1924, 59, xxvii
- , cyclic variations,
women (OKEY) 1925, 63, xxxiii
- Fat-soluble vitamin and
calcium intake, relation
(BETHKE, STEENBOCK,
and NELSON) 1923-24, 58, 71
- — — phosphorus in-
take, relation (BETHKE,
STEENBOCK, and NEL-
SON) 1923-24, 58, 71

Blood—continued:

Fatty acids, inherited anemia, new born mice (DE ABERLE, HOSKINS, and BODANSKY)

1927, 72, 643

Feeding following fasting, changes (MORGULIS and EDWARDS)

1924, 59, xxvii

Filtrate, protein-free, diamino nitrogen (BLAU)

1923, 56, 867

Filtrates, protein-free, Folin-Wu modified method (HADEN)

1923, 56, 469

Finger, sugar (FOSTER)

1923, 55, 291

Fish, marine, asphyxiation influence (HALL, GRAY, and LEPKOVSKY)

1926, 67, 549

—, non-protein organic constituents (DENIS)

1922, 54, 693

Flow, determination by ethyl iodide (STARR and GAMBLE)

1926-27, 71, 509

Gas apparatus, manometric, carbon dioxide factors (VAN SLYKE and SENDROY)

1927, 73, 127

— determination, manometric measurement. I (VAN SLYKE and NEILL)

1924, 61, 523

II (HARRINGTON and VAN SLYKE)

1924, 61, 575

III (VAN SLYKE)

1925, 66, 409

—, vacuum extraction.

I (VAN SLYKE and NEILL)

1924, 61, 523

Blood—continued:

Gas determination, vacuum extraction. II (HARRINGTON and VAN SLYKE)

1924, 61, 575

III (VAN SLYKE)

1925, 66, 409

— equilibrium. I (AUSTIN, CULLEN, HASTINGS, McLEAN, PETERS, and VAN SLYKE)

1922, 54, 121

II (PETERS, CULLEN, and AUSTIN)

1922, 54, 149

III (VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL)

1922, 54, 481

IV (VAN SLYKE, HASTINGS, and NEILL)

1922, 54, 507

V (VAN SLYKE, WU, and McLEAN)

1923, 56, 765

VI (HASTINGS, VAN SLYKE, NEILL, HEIDELBERGER, and HARRINGTON)

1924, 60, 89

VII (HASTINGS, SENDROY, MURRAY, and HEIDELBERGER)

1924, 61, 317

VIII (VAN SLYKE, HASTINGS, MURRAY, and SENDROY)

1925, 65, 701

— saturation, technique (AUSTIN, CULLEN, HASTINGS, McLEAN, PETERS, and VAN SLYKE)

1922, 54, 121

Glucose (LUNDGAARD and HOLBØLL)

1925, 65, 323

—, diabetes mellitus (LUNDGAARD and HOLBØLL)

1925, 65, 343

Blood—continued:

- Glucose, glycosuria, benign
(LUNDGAARD and HOL-
BØLL) 1925, 65, 343
- d-Glucose, disappearance
rate (DU VIGNEAUD and
KARR) 1925, 66, 281
- Glutathione (HUNTER and
EAGLES) 1927, 72, 133
- Glycolysis (TOLSTOI)
1924, 60, 69
- , diabetes (DENIS and
GILES) 1923, 56, 739
(TOLSTOI) 1924, 60, 69
- , leucemia (SCHMITZ and
GLOVER) 1927, 74, 761
- , muscle, comparison
(RONZONI) 1927, 74, xliii
- , non-diabetic (DENIS
and GILES) 1923, 56, 739
- rate (CAJORI and
CROUTER) 1924, 60, 765
- —, diabetes (CAJORI
and CROUTER) 1924, 60, 765
- Hemocyanin-containing,
carbon dioxide transport
(REDFIELD, COOLIDGE,
and HURD) 1926, 69, 475
- , oxygen transport
(REDFIELD, COOLIDGE,
and HURD) 1926, 69, 475
- Hemoglobin, carbon
dioxide absorption
curve, relation (PETERS,
BULGER, and EISEN-
MAN) 1923-24, 58, 747

Blood—continued:

- Hemoglobin determina-
tion, colorimetric
(WONG) 1923, 55, 421
- , egg administration,
influence (ROSE) 1926, 67, xx
- Hen, egg production, varia-
tion (HUGHES, LATSHAW,
and SMITS) 1927, 74, xxx
- Hydrogen ion concentra-
tion-bicarbonate curve
(PETERS, EISENMAN, and
BULGER) 1923, 55, 709
- — concentration, car-
cinoma. I (CHAMBERS)
1923, 55, 229
- II (CHAMBERS and
KLEINSCHMIDT) 1923, 55, 257
- — — determination
(MEEKER and OSER) 1926, 67, 307
- — — —, colorimetric
(HASTINGS and SEND-
ROY) 1924, 61, 695
- — — —, colorimetric,
micro (MYERS, SCHMITZ,
and BOOHER) 1923, 57, 209
- — — —, gasometric
(EISENMAN) 1926-27, 71, 611
- — — —, micro (HAW-
KINS) 1923, 57, 493
- — — —, micro vessel
with electrode (DE EDS
and HANZLIK) 1924, 60, 355
- ions, determination,
colorimetric * (McCLEN-
DON, RUSSELL, and
TRACY) 1926, 70, 705

Blood—continued:

Inorganic composition. I
(KERR)

1926, 67, 689

II (KERR)

1926, 67, 721

—, calcium salts administration effect (SALVESEN, HASTINGS, and MCINTOSH)

1924, 60, 327

— constituents, nephritis (DENIS)

1923, 56, 473

—, suprarenalectomy, changes (BAUMANN and KURLAND)

1926-27, 71, 281

— ion balance, parathyroid tetany (GROSS and UNDERHILL)

1922, 54, 105

— salts, pregnancy (UNDERHILL and DIMICK)

1923-24, 58, 133

Insulin injection, effect (BRIGGS, KOECHIG, DOISY, and WEBER)

1923-24, 58, 721

Iron determination, colorimetric (WONG)

1923, 55, 421

—, electrometric (KING and HOWARD)

1927, 75, 27

Lactation effect, women (MACY, OUTHOUSE, LONG, BROWN, HUNSCHER, and HOOBLER)

1927, 74, xxxi

Lactic acid after insulin (BEST and RIDOUT)

1925, 63, 197

—, determination (RONZONI and WALLEN-LAWRENCE)

1927, 74, 363

Blood—continued:

Lactic acid, epinephrine influence (CORI)

1925, 63, liii, 253

—, glucose effect (KATAYAMA and KILLIAN)

1926-27, 71, 707

—, insulin and glucose effect (KATAYAMA and KILLIAN)

1926-27, 71, 707

—, — effect (CORI)

1925, 63, liii, 253

(KATAYAMA and KILLIAN)

1926-27, 71, 707

—, tumor passage effect (CORI and CORI)

1925, 65, 397

Lactose determination (HASKINS)

1926, 67, lx

Lecithin, determination (RANDLES and KNUDSON)

1922, 53, 53

—, colorimetric (DE TONI)

1926, 70, 207

—, inherited anemia, new born mice (DE ABERLE, HOSKINS, and BODANSKY)

1927, 72, 643

Lipids, diabetes (BLOOR, GILLETTE, and JAMES)

1927, 75, 61

—, menstruation (OKEY and BOYDEN)

1927, 72, 261

Lipoid phosphoric acid, determination, Bell-Doisy method (RANDLES and KNUDSON)

1922, 53, 53

— phosphorus (BAUMANN and HOLLY)

1923, 55, 457

—, —, determination (WHITEHORN)

1924-25, 62, 133

Blood—continued:

Lipoid phosphorus, determination (ROE)

1926, 67, xv

— —, suprarenalectomy effect (BAUMANN and HOLLY)

1923, 55, 457

Lipoids, pregnancy (TYLER and UNDERHILL)

1925, 66, 1

—, tuberculosis (HENNING)

1922, 53, 167

Lymph and, interrelationships (ARNOLD and MENDEL)

1927, 72, 189

Magnesium determination (DENIS)

1922, 52, 411

Mercuric chloride poisoning, acute (LOONEY)

1926, 70, 513

Nephritis, chronic, terminal (HENDERSON, BOCK, DILL, HURXTHAL, and VAN CAULAERT)

1927, 75, 305

—, —, —, respiratory exchanges (HENDERSON, BOCK, DILL, HURXTHAL, and VAN CAULAERT)

1927, 75, 305

Nitrogen distribution, alligator (HOPPING and SCOTT)

1923, 55, xxxiii

—, undetermined, toxicity to *Lupinus albus*, relation (LOONEY and MACHT)

1925, 63, lx

Non-protein nitrogen, cyclic variations, women (OKEY and ERIKSON)

1926, 68, 687

— — determination (BOCK and GILBERT)

1925, 63, xxxix

Blood—continued:

Non-protein nitrogen, hydrazine intoxication and glycine, effect (LEWIS and IZUME)

1926-27, 71, 33

— —, — —, effect (LEWIS and IZUME)

1926-27, 71, 33

— —, pyloric obstruction (FELTY and MURRAY)

1923, 57, 573

— —, sodium oleate effect on filtrates (ROSENTHAL)

1926, 70, 129

— nitrogenous constituents, acute retention (PLASS)

1923, 56, 17

— — — during elimination (PLASS)

1923, 56, 17

Non-sugars, reducing, human (SOMOGYI)

1927, 75, 33

Nucleotide isolation (JACKSON)

1924, 59, 529

Oxidation (KOEHLER)

1923-24, 58, 813

Oxygen (LUNDGAARD and MÖLLER)

1923, 55, 315

— absorption rate (McELROY and GUTHRIE)

1927, 74, xxxv

—, arterial (STEWART)

1924-25, 62, 641

—, carbon dioxide, and acid, interaction (HILL)

1922, 51, 359

— dissociation curves (BOCK, FIELD, and ADAIR)

1924, 59, 353

— exchange and circulation (MURRAY and MORGAN)

1925, 65, 419

Blood—continued:

Oxygen, exercise effect
(LUNDGAARD and
MÖLLER)

1923, 55, 315, 477

—, partial pressure, anox-
emia (GREENE and
GREENE)

1922, 52, 137

— relationships, arterial,
exercise effect (HIMWICH
and BARR)

1923, 57, 363

—, venous (STEWART)

1924-25, 62, 641

Oxygenated, bicarbonate
(VAN SLYKE, HASTINGS,
and NEILL)

1922, 54, 507

—, — ion distribution
(VAN SLYKE, HASTINGS,
MURRAY, and SENDROY)

1925, 65, 701

—, buffer value (VAN
SLYKE, HASTINGS, and
NEILL)

1922, 54, 507

—, chloride ion distribu-
tion (VAN SLYKE, HAST-
INGS, MURRAY, and
SENDROY)

1925, 65, 701

—, hydrogen ion distribu-
tion (VAN SLYKE, HAST-
INGS, MURRAY, and
SENDROY)

1925, 65, 701

Oxygen-combining power,
determination, Van
Slyke apparatus (LUND-
GAARD and MÖLLER)

1922, 52, 377

— properties. II (STADIE
and ROSS)

1926, 68, 229

Blood—continued:

Oxygen-combining proper-
ties, thermodynamic re-
lations (STADIE and
MARTIN)

1924, 60, 191

Pancreas, supply (COL-
LENS)

1925, 64, 461

Parathyroidectomy, . toxin
(GREENWALD)

1924, 61, 33

Peptide nitrogen (BLAU)

1923, 56, 873

—, arterial hypertension
(JACKSON, SHERWOOD,
and MOORE)

1927, 74, 231

Phenols, determination
(RAKESTRAW)

1923, 56, 109

(THEIS and BENEDICT)

1924, 61, 67

Phosphate administration
effect (SALVESEN, HAST-
INGS, and MCINTOSH)

1924, 60, 311

Phosphates, carbohydrate
metabolism, relation
(BOLLIGER and HART-
MAN)

1925, 63, lvi

1925, 64, 91

—, inorganic, sodium lac-
tate intravenously in-
jected, effect (RIEDEL)

1927, 74, 135

Phosphatide variations,
pregnancy (BAUMANN
and HOLLY)

1924, 59, xxv

Phosphoric acid compound
(GREENWALD)

1925, 63, 339

—, lipid, determina-
tion (RANDLES and
KNUDSON)

1922, 53, 53

Blood—continued:

- Phosphorus compounds
(BUELL) 1923, 56, 97
- , —, determination,
colorimetric (ROE, IRISH,
and BOYD) 1926, 67, 579
- intake and fat-soluble
vitamin, relation
(BETHKE, STEENBOCK,
and NELSON) 1923-24, 58, 71
- , inorganic, antirachi-
tic vitamin criterion
(STEENBOCK, HART,
JONES, and BLACK) 1923-24, 58, 59
- , —, calcium relation
(GROLLMAN) 1927, 72, 565
- , —, glucose effect
(KATAYAMA and KIL-
LIAN) 1926-27, 71, 707
- , —, infant (ROSE,
RIESENFELD, and
HANDLEMAN) 1925, 63, xlii
- , —, insulin and glucose
effect (KATAYAMA and
KILLIAN) 1926-27, 71, 707
- , —, — effect (KATA-
YAMA and KILLIAN) 1926-27, 71, 707
- , —, irradiated rachitic
diet (DUTCHER, CREIGHT-
TON, and ROTHROCK) 1925, 66, 401
- , —, normal diet (DUT-
CHER, CREIGHTON, and
ROTHROCK) 1925, 66, 401
- , —, rachitic diet
(DUTCHER, CREIGHTON,
and ROTHROCK) 1925, 66, 401

Blood—continued:

- Phosphorus, lipid (BAU-
MANN and HOLLY) 1923, 55, 457
- , —, determination
(WHITEHORN) 1924-25, 62, 133
- (ROE) 1926, 67, xv
- , —, suprarenalectomy
effect (BAUMANN and
HOLLY) 1923, 55, 457
- , total, determination
(ROE) 1926, 67, xv
- Physicochemical system.
II (HENDERSON, BOCK,
FIELD, and STODDARD) 1924, 59, 379
- III (HENDERSON and
MURRAY) 1925, 65, 407
- IV (DILL, VAN CAU-
LAERT, HURXTHAL,
STODDARD, BOCK, and
HENDERSON) 1927, 73, 251
- V (BOCK, DILL, HURX-
THAL, LAWRENCE,
COOLIDGE, DAILEY, and
HENDERSON) 1927, 73, 749
- VI (HENDERSON, BOCK,
DILL, HURXTHAL, and
VAN CAULAERT) 1927, 75, 305
- Pigment, oxygen capacity,
nitrobenzene administra-
tion effect (STIMSON) 1927, 75, 741
- , —, splenectomy
effect (STIMSON) 1927, 75, 95
- Preservation (SANDER) 1923-24, 58, 1
- , formaldehyde (BOCK) 1924, 59, 73
- , sodium fluoride (ROE,
IRISH, and BOYD) 1927, 75, 685

Blood—continued:

- Protein, anemia, distribution (BODANSKY, MORSE, KIECH, and BRAMKAMP) 1927, 74, 463
- , inorganic
- , Bright's disease, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, heart failure, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, phosphates, Bright's disease, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, heart failure, relation (SALVESEN and LINDER) 1923-24, 58, 617
- Proteins, age effect (HOWE) 1922, 53, 479
- Reaction, exercise effect (BARR) 1923, 56, 171
- Reduced, bicarbonate (VAN SLYKE, HASTINGS, and NEILL) 1922, 54, 507
- , — ion distribution (VAN SLYKE, HASTINGS, MURRAY, and SENDROY) 1925, 65, 701
- , buffer value (VAN SLYKE, HASTINGS, and NEILL) 1922, 54, 507
- , chloride ion distribution (VAN SLYKE, HASTINGS, MURRAY, and SENDROY) 1925, 65, 701
- , hydrogen ion distribution (VAN SLYKE, HASTINGS, MURRAY, and SENDROY) 1925, 65, 701

Blood—continued:

- Reducing substance, glucose, commercial granular, effect (WANG and FELSHER) 1924, 59, liii
- substances (HILLER, LINDER, and VAN SLYKE) 1925, 64, 625
- Reduction (KOEHLER) 1923-24, 58, 813
- , residual (EGE) 1926, 68, 317
- (VAN SLYKE and HILLER) 1926, 68, 323
- Respiratory exchanges, nephritis, chronic, terminal (HENDERSON, BOCK, DILL, HURKTHAL, and VAN CAULAERT) 1927, 75, 305
- , work effect (BOCK, DILL, HURKTHAL, LAWRENCE, COOLIDGE, DAILEY, and HENDERSON) 1927, 73, 749
- Seasonal variations (PUCHER) 1927, 74, xviii
- Sodium benzoate ingestion effect (SWANSON) 1924-25, 62, 565
- oleate addition, non-protein nitrogen in filtrates, effect (ROSENTHAL) 1926, 70, 129
- Soy bean, raw, effect (HORVATH) 1926, 68, 343
- Sulfides, action on (DENIS and REED) 1927, 72, 385
- Sulfur compounds, non-protein. I (HUNTER and EAGLES) 1927, 72, 123
- II (HUNTER and EAGLES) 1927, 72, 133

Blood—continued:

- Sulfur, non-protein, compounds, determination (DENIS and REED) 1926-27, 71, 191
- , —, —, kidney function influence (DENIS and REED) 1927, 73, 41
- , —, distribution (REED and DENIS) 1927, 73, 623
- , sulfur administration effect (DENIS and REED) 1927, 73, 51
- Sulfur-containing compound (thiasine) (BENEDICT, NEWTON, and BEHRE) 1926, 67, 267
- Sympectothion (HUNTER and EAGLES) 1927, 72, 123
- Thiasine (BENEDICT, NEWTON, and BEHRE) 1926, 67, 267
- Thyroparathyroidectomy, chemical effect (GREENWALD) 1924, 61, 649
- Tryptophane determination, Hopkins-Cole glyoxylic acid reagent (CARY) 1926, 67, xxxix
- , mammary gland utilization (CARY) 1926, 67, xl
- Urea determination (BEHRE) 1923, 56, 395
- , —, Folin-Wu filtrates (CLARK and COLLIP) 1926, 67, 621
- , —, micro (GAD-ANDRESEN) 1922, 51, 373
- formation during digestion (MORGULIS) 1925, 66, 353

Blood—continued:

- Urea, pyloric obstruction (FELTY and MURRAY) 1923, 57, 573
- , urea excretion relation (ADDIS and DRURY) 1923, 55, 105
- (DRURY) 1923, 55, 113
- Uric acid, carbohydrate diet, influence (HARDING, ALLIN, and EAGLES) 1927, 74, 631
- , —, combined (DAVIS, NEWTON, and BENEDICT) 1922, 54, 595
- , —, various species (NEWTON and DAVIS) 1922, 54, 603
- , —, cyclic variations, women (OKEY and ERIKSON) 1926, 68, 687
- , —, determination (BENEDICT) 1922, 51, 187
- (FOLIN) 1922, 54, 153
- (BULMER, EAGLES, and HUNTER) 1925, 63, 17
- (BENEDICT) 1925, 64, 215
- (BROWN) 1926, 68, 123
- , —, unknown substance effect (HUNTER and EAGLES) 1925, 65, 623
- , —, distribution, uric acid intravenous injection effect (CHRISTMAN and ECKSTEIN) 1927, 75, 201
- , —, fat diet, influence (HARDING, ALLIN, and EAGLES) 1927, 74, 631

Blood—*continued*:

- Uric acid, fat-high diet effect (HARDING, ALLIN, EAGLES, and VAN WYCK) 1925, 63, 37
- level, sodium chloride influence (HARDING, ALLIN, and VAN WYCK) 1924-25, 62, 61
- Venous-arterial, differences (PETERS, BULGER, and EISENMAN) 1926, 67, 165
- , relation (DOISY and BECKMANN) 1922, 54, 683
- , similar gas content, method of obtaining (GOLDSCHMIDT and LIGHT) 1925, 63, xxxviii
1925, 64, 53
- Vividialysis. I (POWER and GREENE) 1927, 74, xix
- Volume determination (VAN SLYKE and ROBSCHT-ROBBINS) 1927, 72, 39
- Water, bound (NEUHAUSEN) 1922, 51, 435
- distribution (VAN SLYKE, WU, and MCLEAN) 1923, 56, 765
- , free (NEUHAUSEN) 1922, 51, 435
- Work effect (BOCK, DILL, HURXTHAL, LAWRENCE, COOLIDGE, DAILEY, and HENDERSON) 1927, 73, 749
- , respiratory exchanges, effect (BOCK, DILL, HURXTHAL, LAWRENCE, COOLIDGE, DAILEY, and HENDERSON) 1927, 73, 749

Blood cell:

- Analysis (WU) 1922, 51, 21
- Blood serum and, carbon dioxide distribution between, ether effect *in vitro* (AUSTIN and GRAM) 1924, 59, 535
- — —, chloride distribution between, ether effect *in vitro* (AUSTIN and GRAM) 1924, 59, 535
- — —, osmotic pressure relationship (WU) 1926, 70, 203
- Calcium (KRAMER and TISDALL) 1922, 53, 241
- Chlorides, pathological conditions (GRAM) 1924, 61, 337
- Inorganic composition, hemorrhage effect (KERR) 1926, 67, 689
- Limulus*, urease (LOEB and BODANSKY) 1926, 67, 79
- Magnesium (KRAMER and TISDALL) 1922, 53, 241
- Potassium (KRAMER and TISDALL) 1922, 53, 241
- Red, atoms electrically charged, movement (McCLEN-
DON) 1925, 63, xiv
- , conductivity (McCLEN-
DON) 1926, 67, vii
- , enzymes, mammal (MORSE) 1923, 55, xxvii

Blood cell—continued:

Red, hemoglobin, crystalline isoelectric, preparation (STADIE and ROSS)

1926, 68, 229

—, permeability (WAKEMAN, EISENMAN, and PETERS)

1927, 73, 567

—, potassium content (KERR)

1926, 67, 721

Sodium (KRAMER and TISDALL)

1922, 53, 241

Stroma and tissue extracts, blood coagulation effect, (LOEB, FLEISHER, and TUTTLE)

1922, 51, 485

Sulfur, non-protein, blood, distribution between serum and (REED and DENIS)

1927, 73, 623

Urease, *Limulus* (LOEB and BODANSKY)

1926, 67, 79

Uric acid, combined, distribution (NEWTON and DAVIS)

1922, 54, 601

Volume (GRAM)

1924, 59, 33

Blood plasma:

Acid-base equilibrium. I (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 141

II (EISENMAN, BULGER, and PETERS)

1926, 67, 159

III (PETERS, BULGER, and EISENMAN)

1926, 67, 165

IV (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 175

Blood plasma—continued:

Acid-base equilibrium. V (PETERS,¹ BULGER, EISENMAN, and LEE)

1926, 67, 219

— —, anoxemia effect (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 175

— —, exercise effect (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 175

— —, hyperpnea effect (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 175

— —, stasis effect (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 175

Acids (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 141

Albumin, *Bacillus abortus* injection effect (HOWE and SANDERSON)

1924-25, 62, 767

Analysis (WU)

1922, 51, 21

Bases (PETERS, BULGER, EISENMAN, and LEE)

1926, 67, 141

Beef (ROBINSON and HUFFMAN)

1926, 67, 245

Bicarbonate, determination (VAN SLYKE)

1922, 52, 495

— ion concentration, kidney function influence (MURRAY and HASTINGS)

1925, 65, 265

— — —, respiration influence (MURRAY and HASTINGS)

1925, 65, 265

Blood plasma—continued:

Calcium determination,
colorimetric, micro
(KUTTNER and COHEN)

1927, 75, 517

—, renal disease (RABINOWITCH)

1924-25, 62, 667

Carbon dioxide, blood
carbon dioxide, relation
(PETERS, BULGER, and
EISENMAN)

1923-24, 58, 773

— — concentration, kidney
function influence
(MURRAY and HASTINGS)

1925, 65, 265

— — —, respiration influence
(MURRAY and HASTINGS)

1925, 65, 265

Carbonate ion concentration,
kidney function influence
(MURRAY and HASTINGS)

1925, 65, 265

— — —, respiration influence
(MURRAY and HASTINGS)

1925, 65, 265

Chloride determinations
(GRAM and NORGAARD)

1923, 56, 429

Chlorides (DOISY and
BECKMANN)

1922, 54, 683

—, synovial fluid and
(FREMONT-SMITH and
DAILEY)

1926, 70, 779

Cholesterol determination
(BLOOR, PELKAN, and
ALLEN)

1922, 52, 191

Conductivity determinations
(GRAM and NORGAARD)

1923, 56, 429

Blood plasma—continued:

Electrolytes, potassium
oxalate effect (EISENMAN)

1926-27, 71, 587

Fatty acids (BLOOR)

1925, 63, xlv

I (BLOOR)

1923, 56, 711

II (BLOOR)

1924, 59, 543

— —, determination
(BLOOR, PELKAN, and
ALLEN)

1922, 52, 191

— —, unsaturated, forms
of combination (BLOOR)

1924, 59, xxiv

Fluoride, serum and tissue
extract action (LOEB,
FLEISHER, and TUTTLE)

1922, 51, 461

Globulin, *Bacillus abortus*
injection, effect (HOWE
and SANDERSON)

1924-25, 62, 767

Hirudin, serum and tissue
extract action (LOEB,
FLEISHER, and TUTTLE)

1922, 51, 461

Hydrogen ion concentration
(BENNETT)

1926, 69, 693

— — —, Cullen colorimetric
method (BENNETT)

1926, 69, 697

— — —, determination,
colorimetric (CULLEN)

1922, 52, 501

— — — —, colorimetric,
relation to true hydrogen
ion concentration (AUSTIN,
STADIE, and ROBINSON)

1925, 66, 505

— — —, kidney function
influence (MURRAY and
HASTINGS)

1925, 65, 265

Blood plasma—continued:

Hydrogen ion concentration, normal variations
(CULLEN and ROBINSON)

1923, 57, 533

— — —, respiration influence (MURRAY and HASTINGS)

1925, 65, 265

Hydroplasmia, protein as index, pregnancy (PLASS and BOGERT)

1924, 59, xxiv

Inorganic elements
(BRIGGS)

1923, 57, 351

Limulus, urease (LOEB and BODANSKY)

1926, 67, 79

Lipoid phosphorus determination (WHITEHORN)

1924-25, 62, 133

Lipoids, anemia (BLOOR)

1925, 63, 1

Magnesium determination (DENIS)

1922, 52, 411

—, renal disease (RABINOWITCH)

1924-25, 62, 667

Non-protein nitrogenous constituents, acute retention (PLASS)

1923, 56, 17

— — — during elimination (PLASS)

1923, 56, 17

Oxygenated, acids, carbon dioxide tension effect (EISENMAN, BULGER, and PETERS)

1926, 67, 159

Peptone, serum and tissue extract action (LOEB, FLEISHER, and TUTTLE)

1922, 51, 461

Blood plasma—continued:

Phosphate determination, colorimetric, micro (KUTTNER and COHEN)

1927, 75, 517

Phosphates, determination, error (DENIS and VON MEYSENBUG)

1922, 52, 1

Phosphorus, inorganic (TOLSTOI)

1923, 55, 157

—, lipid, determination (WHITEHORN)

1924-25, 62, 133

Potassium, renal disease (RABINOWITCH)

1924-25, 62, 667

Protein fractions, abortion (HOWE and SANDERSON)

1924-25, 62, 767

—, hydroplasmia index, pregnancy (PLASS and BOGERT)

1924, 59, xxiv

— precipitation, various salts, influence (HOWE)

1923, 57, 241

Proteins (MATTHEW)

1927, 74, 557

—, anhydremia (BODANSKY)

1926, 67, xxxviii

—, determination, colorimetric (WU)

1922, 51, 33

—, synovial fluid and (FREMONT-SMITH and DAILEY)

1926, 70, 779

Sodium, renal disease (RABINOWITCH)

1924-25, 62, 667

Urease, *Limulus* (LOEB and BODANSKY)

1926, 67, 79

Blood serum:

Absorption spectrum,
ultra-violet (STENSTRÖM
and REINHARD)

1925, 66, 819

Alkaline reserve, chicks
(ACKERSON, BLISH, and
MUSSEHL)

1925, 63, 75

— —, rickets, chicks
(ACKERSON, BLISH, and
MUSSEHL)

1925, 63, 75

Anions (PINCUS and
KRAMER)

1923, 57, 463

Base, determination, micro
(STADIE and ROSS)

1925, 65, 735

—, total, determination,
gasometric, micro (VAN
SLYKE, HILLER, and
BERTHELSEN)

1927, 74, 659

Blood cell, red, stroma and,
interaction mechanism
(LOEB, FLEISHER, and
TUTTLE)

1922, 51, 485

— cells and, carbon dioxide
distribution between,
ether effect *in vitro*
(AUSTIN and GRAM)

1924, 59, 535

— — —, chloride distribu-
tion between, ether effect
in vitro (AUSTIN and
GRAM)

1924, 59, 535

— — —, osmotic pressure,
relationship between
(WU)

1926, 70, 203

— coagulation, tissue
extract and. I (LOEB,
FLEISHER, and TUTTLE)

1922, 51, 461

II (LOEB, FLEISHER, and
TUTTLE)

1922, 51, 485

Blood serum—continued:

Buffer systems (DOISY,
EATON, and CHOUKE)
1922, 53, 61

Calcium (KRAMER and
TISDALL)

1922, 53, 241

— and protein, parathy-
roid tetany, relation
(SALVESEN and LINDER)

1923-24, 58, 635

—, calcium salts adminis-
tration, influence
(HJORT)

1925, 65, 783

—, chicks (ACKERSON,
BLISH, and MUSSEHL)
1925, 63, 75

— determination, Kramer-
Tisdall method (TIS-
DALL)

1923, 56, 439

— —, Tisdall method
(CLARK and COLLIP)

1925, 63, 461

— diffusibility (LOEB and
NICHOLS)

1927, 72, 687

— —, dialysis effect (LOEB
and NICHOLS)

1927, 74, 645

— —, ether extraction
effect (LOEB and
NICHOLS)

1927, 74, 645

—, diffusible and non-
diffusible, distribution
(UPDEGRAFF, GREEN-
BERG, and CLARK)

1926-27, 71, 87

—, fasting effect (CAVINS)

1924, 59, 237

—, fetus (BOGERT and
PLASS)

1923, 56, 297

—, fracture union (MOOR-
HEAD, SCHMITZ, CUTTER,
and MYERS)

1923, 55, xiii

Blood serum—continued:

Calcium, hypercalcemia
(MORITZ)

1925, 66, 343

—, hypocalcemia (MORITZ)
1925, 66, 343

—, maternal (BOGERT and
PLASS)

1923, 56, 297

— phosphate solubility
(GREENWALD and
GROSS)

1925, 66, 217

—, rickets, chicks (ACKER-
SON, BLISH, and MUS-
SEHL) 1925, 63, 75

—, —, fasting effect
(CAVINS)

1924, 59, 237

— solubility (IRVING)
1926, 68, 239

—, thyreoparathyroprivic
dogs, calcium salts
administration, influence
(HJORT)

1925, 65, 783

—, ultra-violet irradiation
(MORITZ)

1925, 64, 81

Carbon dioxide absorption
curve, acid-base-protein
equilibrium, temperature
effect (STADIE, AUSTIN,
and ROBINSON)

1925, 66, 901

— — determination, ether
presence, Van Slyke
method (AUSTIN)

1924, 61, 345

Cations (PINCUS and
KRAMER)

1923, 57, 463

Chlorides, osmotic pressure
regulation, effect (GRAM)

1923, 56, 593

—, pathological conditions
(GRAM)

Blood serum—continued:

Cholesterol determination,
Bloor modified method
(SACKETT)

1925, 64, 203

—, fasting effect (SHOPE)
1927, 75, 101

Conductivity, ionometric
method (GRAM and
CULLEN)

1923, 57, 477

—, osmotic pressure regula-
tion, effect (GRAM)

1923, 56, 593

—, protein influence
(ATCHLEY and NICHOLS)

1925, 65, 729

Cresol red adsorption in
(HIRSCH)

1925, 63, 55

Electrodialysis (BERNHARD
and BEAVER)

1926, 69, 113

Electrolytes. II (AUSTIN,
SUNDERMAN, and CA-
MACK) 1927, 72, 677

—, poikilothermous animal,
different temperatures
(AUSTIN, SUNDERMAN,
and CAMACK)

1927, 72, 677

Formalized, gelatification
(HENLEY)

1923, 57, 139

—, protein changes (HEN-
LEY) 1923, 57, 139

Freezing point, osmotic
pressure regulation,
effect (GRAM)

1923, 56, 593

Globulins, determination
(HENLEY)

1922, 52, 367

Heating, fluoride, plasma,
action (LOEB, FLEISHER,
and TUTTLE)

Blood serum—continued:

- Heating, hirudin plasma, action (LOEB, FLEISHER, and TUTTLE) 1922, 51, 461
- , peptone plasma, action (LOEB, FLEISHER, and TUTTLE) 1922, 51, 461
- Hydrogen ion concentration (BENNETT) 1926, 69, 693
- , apparent dissociation constant, Henderson-Hasselbalch equation (CULLEN, KEELER, and ROBINSON) 1925, 66, 301
- — — determination, colorimetric, relation to true hydrogen ion concentration (AUSTIN, STADIE, and ROBINSON) 1925, 66, 505
- — —, quinhydrone electrode (CULLEN and BILLMANN) 1925, 64, 727
- — —, poikilothermous animal, different temperatures (AUSTIN, SUNDERMAN, and CAMACK) 1927, 72, 677
- Inorganic composition, hemorrhage effect (KERR) 1926, 67, 689
- constituents, nephritis (DENIS and HOBSON) 1923, 55, 183
- , ultrafiltration study (NEUHAUSEN and PINCUS) 1923, 57, 99
- (PINCUS, PETERSON, and KRAMER) 1926, 68, 601

Blood serum—continued:

- Inorganic substances, cerebrospinal fluid and, comparison (HAMILTON) 1925, 65, 101
- Lead compounds in, solubility (FAIRHALL) 1924, 60, 481
- Magnesium (KRAMER and TISDALL) 1922, 53, 241
- determination (DENIS) 1922, 52, 411
- , fetus (BOGERT and PLASS) 1923, 56, 297
- , maternal (BOGERT and PLASS) 1923, 56, 297
- Phosphoric acid compounds, fetus (PLASS and TOMPKINS) 1923, 56, 309
- — —, maternal (PLASS and TOMPKINS) 1923, 56, 309
- Phosphorus, chicks (ACKERSON, BLISH, and MUSEHL) 1925, 63, 75
- concentration, fracture union (MOORHEAD, SCHMITZ, CUTTER, and MYERS) 1923, 55, xiii
- , inorganic (TOLSTOI) 1923, 55, 157
- , —, determination (BENEDICT and THEIS) 1924, 61, 63
- , —, fasting effect (CAVINS) 1924, 59, 237
- , —, fracture healing relation (EDDY and HEFT) 1923, 55, xii
- , —, rickets, fasting effect (CAVINS) 1924, 59, 237

Blood serum—continued:

Phosphorus, rickets, chicks
(ACKERSON, BLISH, and
MUSSEHL)

1925, 63, 75

Potassium (KRAMER and
TISDALL)

1922, 53, 241

Protein and calcium, para-
thyroid tetany, relation
(SALVESEN and LINDER)

1923-24, 58, 635

—, conductivity, influence
(ATCHLEY and NICHOLS)

1925, 65, 729

— precipitation, various
salts, influence (HOWE)

1923, 57, 241

—, rickets, cod liver oil
feeding effect (EDERER)

1924, 60, 621

*Proteins, determination,
refractometric (NEU-
HAUSEN and RIOCH)

1923, 55, 353

—, osmotic pressure regula-
tion, effect (GRAM)

1923, 56, 593

Refractive index, para-
thyroidectomy (HAM-
METT)

1923, 55, x

— —, thyroparathyroid-
ectomy (HAMMETT)

1923, 55, x

Sodium (KRAMER and TIS-
DALL)

1922, 53, 241

— determination, iodo-
metric method (KRAMER
and GITTLEMAN)

1924-25, 62, 353

— —, volumetric method
(KRAMER and GITTLE-
MAN)

1924, 59, xlv

Sugar, fasting effect
(SHOPE)

1927, 75, 101

Blood serum—continued:

Sulfate determination,
colorimetric (HUBBARD)

1927, 74, v

Sulfur, non-protein, blood,
distribution between cor-
puseles and (REED and
DENIS)

1927, 73, 623

Tissue extract and, fluoride
plasma (LOEB, FLEISHER,
and TUTTLE)

1922, 51, 461

— — —, hirudin plasma
(LOEB, FLEISHER, and
TUTTLE)

1922, 51, 461

— — —, peptone plasma
(LOEB, FLEISHER, and
TUTTLE)

1922, 51, 461

— extracts and, interac-
tion mechanism (LOEB,
FLEISHER, and TUTTLE)

1922, 51, 485

Water, parathyroidectomy
(HAMMETT)

1923, 55, x

—, thyroparathyroidec-
tomy (HAMMETT)

1923, 55, x

Blood sugar:

(HARNED)

1925, 65, 555

(GILBERT, SCHNEIDER, and
BOCK)

1926, 67, 629

(FOLIN and SVEDBERG)

1926, 70, 405

II (BOCK, SCHNEIDER, and
GILBERT)

1926, 69, 9

Ammonia and (HORVATH)

1926, 70, 289

Asphyxia, cod, sculpin, and
pollock (MENTEN)

1927, 72, 249

Blood sugar—continued:

- Benedict method (ROCKWOOD) 1926, 69, 187
 Capillary (GIBSON) 1926, 67, xlv
 Curves (JONAS, MILLER, and TELLER) 1925, 63, lv
 —, cerebrospinal rhinorrhea, glucose ingestion (GIBSON and DULANEY) 1926, 67, lxi
 —, diabetes (JONAS, MILLER, and TELLER) 1925, 63, lv
 —, —, insulin effect (JONAS, MILLER, and TELLER) 1925, 63, lv
 —, dihydroxyacetone ingestion effect (RABINOWITCH) 1925, 65, 55
 —, insulin effect (JONAS, MILLER, and TELLER) 1925, 63, lv
 —, sugar-regulating mechanism (LENNOX) 1927, 73, 237
 Determination (GILBERT and BOCK) 1924-25, 62, 361 (BENEDICT) 1925, 64, 207 (DUGGAN and SCOTT) 1926, 67, 287 (FOLIN) 1926, 67, 357 (BENEDICT) 1926, 68, 759
 —, Benedict method (ROCKWOOD) 1926, 69, 187
 —, Folin-Wu (ROTHBERG and EVANS) 1923-24, 58, 435

Blood sugar—continued:

- Determination, Folin-Wu and Benedict methods (CSONKA and TAGGART) 1922, 54, 1
 —, — modified method (ROTHBERG and EVANS) 1923-24, 58, 443
 —, gasometric (VAN SLYKE and HAWKINS) 1927, 74, viii
 Fasting, menstrual cycle, relation (OKEY and ROBB) 1925, 65, 165
 Finger and venous, comparison (FOSTER) 1923, 55, 291
 Folin-Wu and Benedict methods, comparison (LYTTLE and HEARN) 1926, 68, 751
 Glucose effect (KATAYAMA and KILLIAN) 1926-27, 71, 707
 — ingestion effect (FOSTER) 1923, 55, 303
 Hydrazine influence (UNDERHILL and KARELITZ) 1923-24, 58, 147
 Initial rise (BOCK, SCHNEIDER, and GILBERT) 1926, 69, 9
 Insulin and glucose effect (KATAYAMA and KILLIAN) 1926-27, 71, 707
 — effect (KATAYAMA and KILLIAN) 1926-27, 71, 707
 Liver amylase rôle in regulation (DAVENPORT) 1926, 70, 625
 Nature (DENIS and HUME) 1924, 60, 603

Blood sugar—continued:

Pancreatectomy, pancrea-
tic perfusate influence
(CLOUGH, STOKES,
GIBBS, STONE, and
MURLIN)

1923, 55, xxx

Sodium *r*-lactate effect
(ABRAMSON, EGGLETON,
and EGGLETON)

1927, 75, 763

— lactate intravenously
injected, effect (RIEGL)

1927, 74, 135

Total (EVERETT, SHOE-
MAKER, and SHEPPARD)

1927, 74, 739

—, determination (EVER-
ETT and SHOEMAKER)

1927, 74, vi

True, human (SOMOGYI)

1927, 75, 33

Tumor passage effect (CORI
and CORI)

1925, 65, 397

Values, Folin-Wu, correc-
tion (OSER and KARR)

1926, 67, 319

Venous and finger, com-
parison (FOSTER)

1923, 55, 291

Vividialysis (POWER and
GREENE)

1927, 74, xix

Bloor:

Cholesterol determination,
blood, modified method
(SACKETT)

1925, 64, 203

— — — serum, modified
method (SACKETT)

1925, 64, 203

Body:

Acid-base equilibrium,
external heat effect
(CAJORI, CROUTER, and
PEMBERTON)

1923, 57, 217

Body fluids:

Bee, honey, larva. I
(BISHOP)

1923-24, 58, 543

II (BISHOP, BRIGGS, and
RONZONI)

1925, 66, 77

—, —, larval activity,
buffer value changes
(BISHOP)

1923-24, 58, 543

—, —, — —, carbon
dioxide capacity changes
(BISHOP)

1923-24, 58, 543

—, —, — —, hydrogen ion
concentration changes
(BISHOP)

1923-24, 58, 543

—, —, — —, osmotic pres-
sure changes (BISHOP)

1923-24, 58, 543

—, —, — —, oxygen ca-
pacity changes (BISHOP)

1923-24, 58, 543

—, —, — —, specific
gravity changes (BISHOP)

1923-24, 58, 543

—, —, metamorphosis,
buffer value changes
(BISHOP)

1923-24, 58, 543

—, —, —, carbon dioxide
capacity changes
(BISHOP)

1923-24, 58, 543

—, —, —, hydrogen ion
concentration changes
(BISHOP)

1923-24, 58, 543

—, —, —, osmotic pressure
changes (BISHOP)

1923-24, 58, 543

—, —, —, oxygen capacity
changes (BISHOP)

1923-24, 58, 543

Body fluids—continued:

Bee, honey, metamorphosis, specific gravity changes (BISHOP)

1923-24, 58, 543

Bright's disease, protein and inorganic bases, relation (SALVESEN and LINDER)

1923-24, 58, 617

—, —, — inorganic phosphates, relation (SALVESEN and LINDER)

1923-24, 58, 617

Glucose, form (LUNDGAARD and HOLBØLL)

1925, 65, 363

Heart failure, protein and inorganic bases, relation (SALVESEN and LINDER)

1923-24, 58, 617

—, —, — inorganic phosphates, relation (SALVESEN and LINDER)

1923-24, 58, 617

Hydrogen ion concentration determination, micro vessel with electrode (DE EDS and HANZLIK)

1924, 60, 355

Protein, inorganic bases, Bright's disease, relation (SALVESEN and LINDER)

1923-24, 58, 617

—, —, —, heart failure, relation (SALVESEN and LINDER)

1923-24, 58, 617

—, —, — phosphates, Bright's disease, relation (SALVESEN and LINDER)

1923-24, 58, 617

—, —, —, heart failure, relation (SALVESEN and LINDER)

1923-24, 58, 617

Body fluids—continued:

Sea-lion, chemical composition (SWAIN and RAKESTRAW)

1923, 55, iv

Bone:

Age effect (HAMMETT)

1925, 63, xxx

Ash, diet effect (DUTCHER, CREIGHTON, and ROTHEROCK)

1925, 66, 401

—, growth (HAMMETT)

1925, 64, 409, 693

—, —, parathyroid gland rôle (HAMMETT)

1927, 72, 505

—, —, thyroid gland rôle (HAMMETT)

1927, 72, 505

—, irradiated rachitic diet, effect (DUTCHER, CREIGHTON, and ROTHEROCK)

1925, 66, 401

—, rachitic diet effect (DUTCHER, CREIGHTON, and ROTHEROCK)

1925, 66, 401

Calcification, equilibria (HOLT)

1925, 64, 579

Calcium deposition, rickets, hematoporphyrin effect (VAN LEERSUM)

1923-24, 58, 835

— determination (KRAMER and HOWLAND)

1926, 68, 711

—, growth (HAMMETT)

1925, 64, 685

—, —, parathyroid gland rôle (HAMMETT)

1927, 72, 527

—, —, thyroid gland rôle (HAMMETT)

1927, 72, 527

Bone—continued:

Carbonate determination
(KRAMER and HOWLAND)

1926, 68, 711

Composition, inorganic. I
(SHEAR and KRAMER)

1927, 74, ix

—, parathyroid deficiency
effect (HAMMETT)

1924, 59, xli

—, thyroid deficiency effect
(HAMMETT)

1924, 59, xli

Development, sunlight
influence (MAYNARD,
GOLDBERG, and MILLER)

1925, 65, 643

Diet influence on (TOV-
ERUD)

1923-24, 58, 583

Fat-soluble vitamin and
calcium intake, relation
(BETHKE, STEENBOCK,
and NELSON)

1923-24, 58, 71

— — — phosphorus in-
take, relation (BETHKE,
STEENBOCK, and NEL-
SON)

1923-24, 58, 71

Growth. I (HAMMETT)

1925, 64, 409

II (HAMMETT)

1925, 64, 685

III (HAMMETT)

1925, 64, 693

Inorganic composition
(HOWLAND, MARRIOTT,
and KRAMER)

1926, 68, 721

Magnesium determination
(KRAMER and HOW-
LAND)

1926, 68, 711

—, growth (HAMMETT)

1925, 64, 685

Bone—continued:

Magnesium, growth, para-
thyroid gland rôle.
(HAMMETT)

1927, 72, 527

—, —, thyroid gland rôle
(HAMMETT)

1927, 72, 527

Meal, calcium balance ef-
fect, hay and, milking
cows (HART, STEENBOCK,
HOPPERT, BETHKE, and
HUMPHREY)

1922, 54, 75

—, green grass and, cal-
cium balance, milking
cows, effect (HART,
STEENBOCK, HOPPERT,
and HUMPHREY)

1923-24, 58, 43

—, — — —, phosphorus
balance, milking cows,
effect (HART, STEEN-
BOCK, HOPPERT, and
HUMPHREY)

1923-24, 58, 43

—, phosphorus balance ef-
fect, hay and, milking
cows (HART, STEENBOCK,
HOPPERT, BETHKE, and
HUMPHREY)

1922, 54, 75

Organic matter, growth
(HAMMETT)

1925, 64, 409

— — —, parathyroid
gland rôle (HAMMETT)

1927, 72, 505

— — —, thyroid gland
rôle (HAMMETT)

1927, 72, 505

Phosphate determination
(KRAMER and HOW-
LAND)

1926, 68, 711

Bone—continued:

Phosphorus, growth (HAMMETT) 1925, 64, 685

—, —, parathyroid gland rôle (HAMMETT)

1927, 72, 527

—, —, thyroid gland rôle (HAMMETT)

1927, 72, 527

Rickets, calcium deposition, hematoporphyrin effect (VAN LEERSUM)

1923-24, 58, 835

Water, growth (HAMMETT)

1925, 64, 409

—, —, parathyroid gland rôle (HAMMETT)

1927, 72, 505

—, —, thyroid gland rôle (HAMMETT)

1927, 72, 505

See also Femur, Humerus.

Boric acid:

Skin passage (KAHLENBERG)

1924-25, 62, 149

Borneol glycuronic acid:

Preparation (QUICK)

1927, 74, 331

Brain:

Arachidonic acid, isolation (WESSON)

1924, 60, 183

Cephalin, fatty acids, unsaturated (LEVENE and ROLF)

1922, 54, 91

Creatine (HARDING and EAGLES)

1924, 60, 301

Creatinine formation from creatine (HAMMETT)

1924, 59, 347

Lecithin, fatty acids, unsaturated (LEVENE and ROLF)

1922, 54, 99

Bran:

Rice, protein efficiency with corn-meal (MAYNARD, FRONDA, and CHEN)

1923, 55, 145

Wheat, albumin (JONES and GERSDORFF)

1923-24, 58, 117

—, and embryo, proteins, comparison (JONES and GERSDORFF)

1925, 64, 241

—, — endosperm, proteins, comparison (JONES and GERSDORFF)

1925, 64, 241

—, globulin (JONES and GERSDORFF)

1923-24, 58, 117

—, prolamin (JONES and GERSDORFF)

1923-24, 58, 117

—, proteins. I (JONES and GERSDORFF)

1923-24, 58, 117

II (JONES and GERSDORFF)

1925, 64, 241

III (MURPHY and JONES)

1926, 69, 85

—, —, amino acids (JONES and GERSDORFF)

1925, 64, 241

—, —, free amino nitrogen (JONES and GERSDORFF)

1925, 64, 241

—, —, nitrogen distribution (JONES and GERSDORFF)

1925, 64, 241

—, —, nutritive properties (MURPHY and JONES)

1926, 69, 85

Bread:

Milk and, proteins, maintenance value (ROSE and MACLEOD)
1925, 66, 847

Breathing:

Alkalosis, experimental, exercise effect (RONZONI)
1926, 67, xxv

Ether anesthesia, volume effect (HAGGARD)
1924, 59, 795

Exercise, blood reaction and (BARR)
1923, 56, 171

Breit:

Conductance formula, blood (McCLENDON)
1924, 59, lvi

Bright's disease:

Blood protein, inorganic bases, relation (SALVESEN and LINDER)
1923-24, 58, 617

— — — phosphates, relation (SALVESEN and LINDER)
1923-24, 58, 617

Body fluids, protein, inorganic bases, relation (SALVESEN and LINDER)
1923-24, 58, 617

— — — — phosphates, relation (SALVESEN and LINDER)
1923-24, 58, 617

Bromine:

Excretion, bromoform anesthesia, effect (LUCAS, BROWN, and HENDERSON)
1927, 74, lxxix

p-Bromo acids:

Fate, animal organism (CERECEDO and SHERWIN)
1924-25, 62, 217

Bromoform:

Anesthesia, bromine excretion (LUCAS, BROWN, and HENDERSON)
1927, 74, lxxix

Bromolecithin:

I (LEVENE and ROLF)
1925, 65, 545

II (LEVENE and ROLF)
1926, 67, 659

Egg yolk (LEVENE and ROLF)
1926, 67, 659

Liver (LEVENE and ROLF)
1926, 67, 659

Buffer(s):

Action, body, ether in central nervous system, relation (HAGGARD)
1924, 59, 771

Blood, evaluation (DOISY, BRIGGS, EATON, and CHAMBERS)
1922, 54, 305

Concentration, buffer value relationship (VAN SLYKE)
1922, 52, 525

Dissociation constant, buffer value relationship (VAN SLYKE)
1922, 52, 525

Mechanism, calcium ion concentration (KUGELMASS)
1924, 60, 237

Phosphate, glucose determination in presence (VISSCHER)
1926, 69, 1

Reaction, buffer value relationship (VAN SLYKE)
1922, 52, 525

Specific, milk, evaporated, stability during sterilization (BENTON and ALBERY)
1926, 68, 251

Buffer mixture:

Preparation (KOLTHOFF)
1925, 63, 135

Buffer systems:

Blood serum (DOISY,
EATON, and CHOUKE)
1922, 53, 61

Buffer value:

Blood, oxygenated (VAN
SLYKE, HASTINGS, and
NEILL)

1922, 54, 507

—, reduced (VAN SLYKE,
HASTINGS, and NEILL)
1922, 54, 507

Body fluid, honey bee,
larval activity, changes
(BISHOP)

1923-24, 58, 543

— — —, metamorpho-
sis, changes (BISHOP)
1923-24, 58, 543

Buffer solution concentra-
tion, relationship (VAN
SLYKE)

1922, 52, 525

— — reaction, relationship
(VAN SLYKE)
1922, 52, 525

Determination, calcium ion
(KUGELMASS)

1924, 60, 237

Dissociation constant of
buffer, relationship (VAN
SLYKE)

1922, 52, 525

Hemoglobin, reduced (VAN
SLYKE, HASTINGS,
HEIDELBERGER, and
NEILL)

1922, 54, 481

Measurement (VAN SLYKE)
1922, 52, 525

Oxyhemoglobin (VAN
SLYKE, HASTINGS,
HEIDELBERGER, and
NEILL)

1922, 54, 481

Buffering:

Tissues, carbon dioxide
capacity, body, indica-
tion (BROCKLEHURST
and HENDERSON)
1927, 72, 665

Butane:

Dextro-1-amino-3-hy-
droxy-, dextro-1, 3-di-
hydroxybutane, conversion
(LEVENE and HALLER)
1926, 69, 569

d-2-Mercapto-, oxidation to
d-butane-2-sulfonic acid
(LEVENE and MIKESKA)
1925, 63, 85

***d*-Butane-2-sulfonic acid:**

d-2-Mercaptobutane oxida-
tion to (LEVENE and
MIKESKA)
1925, 63, 85

Butter fat:

Calcium assimilation, in-
fluence (BOGERT and
TRAIL)
1922, 54, 387

Magnesium assimilation,
influence (BOGERT and
TRAIL)
1922, 54, 753

Phosphorus assimilation,
influence (BOGERT and
TRAIL)
1922, 54, 753

Sulfuric acid reaction
(SJÖRSLEV)
1924-25, 62, 487

Vitamin A-containing, sul-
furic acid reaction (SJÖR-
SLEV)

1924-25, 62, 487

— D variation, rickets fac-
tor (McCOLLUM, SIM-
MONDS, BECKER, and
SHIPLEY)
1926, 70, 437

— E (SURE)
1927, 74, 71

Butyl alcohol:

Acetone-, fermentation, l-leucic acid formation
(SCHMIDT, PETERSON,
and FRED)

1924, 61, 163

Carbohydrate fermentation (ROBINSON)

1922, 53, 125

n-Butyl nitrite:

Cholesterol, activated,
action on (BILLS)

1925, 66, 451

Vitamin, antirachitic,
action on (BILLS)

1925, 66, 451

Butyric acid:

γ -Amino-, phlorhizinized
dog, fate (CORLEY)

1926, 70, 99

Caffeine:

Guanosine relation (CAM-
ARGO)

1923-24, 58, 831

Vernine relation (CAM-
ARGO)

1923-24, 58, 831

Calcification:

I (HOLT, LA MER, and
CHOWN)

1925, 64, 509

II (HOLT, LA MER, and
CHOWN)

1925, 64, 567

III (HOLT)

1925, 64, 579

Bone, equilibria concerned
(HOLT)

1925, 64, 579

Fats (STEENBOCK and
BLACK)

1925, 64, 263

Calcification—continued:

Fats, unsaponifiable constituents, light exposure,
effect (STEENBOCK and
BLACK)

1925, 64, 263

Milk, dry, irradiated and
non-irradiated, summer-
and winter-produced
(SUPPLEE and Dow)

1927, 73, 617

Ration, ultra-violet exposure, properties (STEEN-
BOCK and BLACK)

1924, 61, 405

Rickets-producing ration,
radiant energy effect
(STEENBOCK and NEL-
SON)

1924-25, 62, 209

Calcium:

Absorption, intestine
(BERGEIM)

1926, 67, lv

1926, 70, 51

—, —, carbohydrates and
(BERGEIM)

1926, 70, 35

Almonds, utilization (ROSE
and MacLEOD)

1923, 55, xxiv

1923, 57, 305

Assimilation (HUNT, WIN-
TER, and MILLER)

1923, 55, 739

—, butter fat influence
(BOGERT and TRAIL)

1922, 54, 387

—, cod liver oil, lactation,
influence (HART, STEEN-
BOCK, KLETZIEN, and
SCOTT)

1926-27, 71, 271

Calcium—continued:

Assimilation, dietary factors influencing. II
(HART, STEENBOCK, HOPPERT, and HUMPHREY)

1922, 53, 21

III (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

IV (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1923-24, 58, 43

V (HART, STEENBOCK, and ELVEHJEM)

1924-25, 62, 117

VI (STEENBOCK, HART, ELVEHJEM, and KLETZIEN)

1925, 66, 425

VII (HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY)

1926, 67, 371

VIII (HART, STEENBOCK, SCOTT, and HUMPHREY)

1926-27, 71, 263

IX (HART, STEENBOCK, KLETZIEN, and SCOTT)

1926-27, 71, 271

X (HART, STEENBOCK, SCOTT, and HUMPHREY)

1927, 73, 59

—, lactation, cod liver oil influence (HART, STEENBOCK, KLETZIEN, and SCOTT)

1926-27, 71, 271

—, yeast influence (BOGERT and TRAIL)

1922, 54, 387

Balance, alfalfa, milking cows, effect (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1922, 53, 21

Calcium—continued:

Balance, bone meal and green grasses, milking cows, effect (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1923-24, 58, 43

—, calcium level and sunlight, milking cows, effect (HART, STEENBOCK, SCOTT, and HUMPHREY)

1926-27, 71, 263

—, —, milking cows, effect (HART, STEENBOCK, SCOTT, and HUMPHREY)

1926-27, 71, 263

—, cholesterol, irradiated, effect (HESS and SHERMAN)

1927, 73, 145

—, dairy cows (GAESSLER and McCANDLISH)

1923, 56, 663

—, green grasses, milking cows, effect (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1923-24, 58, 43

—, hay and calcium phosphate (bone meal), milking cows, effect (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

—, —, milking cows, effect (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

—, light, lactating animals, effect (HART, STEENBOCK, and ELVEHJEM)

1924-25, 62, 117

Calcium—continued:

- Balance, sunlight, milking cows, influence (HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY) 1926, 67, 371
- Blood, antirachitic vitamin criterion (STEENBOCK, HART, JONES, and BLACK) 1923-24, 58, 59
- cells and serum, distribution between (KRAMER and TISDALL) 1922, 53, 241
- , determination, colorimetric (ROE and KAHN) 1926, 67, 585
- , inorganic phosphorus, relation (GROLLMAN) 1927, 72, 565
- , oxalated, determination (ROTHWELL) 1927, 74, 257
- , parathyroid hormone regulation (COLLIP) 1925, 63, 395
- , — relation (GREENWALD) 1926, 67, xxxv
- , — tetany (CAMERON and MOORHOUSE) 1925, 63, 687
- , pregnancy (UNDERHILL and DIMICK) 1923-24, 58, 133
- , spinal cord section effect (HESS, BERG, and SHERMAN) 1927, 74, xxvii
- , sympathetic section effect (HESS, BERG, and SHERMAN) 1927, 74, xxvii
- plasma, determination, colorimetric, micro (KUTTNER and COHEN) 1927, 75, 517

Calcium—continued:

- Blood plasma, renal disease (RABINOWITCH) 1924-25, 62, 667
- serum and cells, distribution between (KRAMER and TISDALL) 1922, 53, 241
- —, calcium salts administration, influence (HJORT) 1925, 65, 783
- —, chicks (ACKERSON, BLISH, and MUSSEHL) 1925, 63, 75
- —, determination, Kramer-Tisdall method (TISDALL) 1923, 56, 439
- —, —, Tisdall method (CLARK and COLLIP) 1925, 63, 461
- —, diffusibility (LOEB and NICHOLS) 1927, 72, 687
- —, —, dialysis effect (LOEB and NICHOLS) 1927, 74, 645
- —, —, ether extraction effect (LOEB and NICHOLS) 1927, 74, 645
- —, diffusible and non-diffusible, distribution (UPDEGRAFF, GREENBERG, and CLARK) 1926-27, 71, 87
- —, fasting effect (CAVINS) 1924, 59, 237
- —, fetus (BOGERT and PLASS) 1923, 56, 297
- —, fracture union, concentration (MOORHEAD, SCHMITZ, CUTTER, and MYERS) 1923, 55, xiii

Calcium—continued:

Blood serum, hypercalcemia (MORITZ)

1925, 66, 343

— —, hypocalcemia (MORITZ)

1925, 66, 343

— —, maternal (BOGERT and PLASS)

1923, 56, 297

— —, protein and, parathyroid tetany, relation (SALVESEN and LINDER)

1923-24, 58, 635

— —, rickets, chicks (ACKERSON, BLISH, and MUSSEHL)

1925, 63, 75

— —, —, fasting effect (CAVINS)

1924, 59, 237

— —, solubility (IRVING)

1926, 68, 239

— —, thyreoparathyroprivic dogs, calcium salts administration, influence (HJORT)

1925, 65, 783

— —, ultra-violet irradiation (MORITZ)

1925, 64, 81

Body, age relation (SHERMAN and MACLEOD)

1925, 63, xxx

1925, 64, 429

—, food relation (SHERMAN and MACLEOD)

1925, 63, xxx

1925, 64, 429

—, growth relation (SHERMAN and MACLEOD)

1925, 63, xxx

1925, 64, 429

Bone, deposition, rickets, hematoporphyrin effect (VAN LEERSUM)

1923-24, 58, 835

Calcium—continued:

Bone, determination (KRAMER and HOWLAND)

1926, 68, 711

—, growth (HAMMETT)

1925, 64, 685

—, —, parathyroid gland rôle (HAMMETT)

1927, 72, 527

—, —, thyroid gland rôle (HAMMETT)

1927, 72, 527

Cerebrospinal fluid, determination, colorimetric, micro (KUTTNER and COHEN)

1927, 75, 517

— —, parathyroid tetany (CAMERON and MOORHOUSE)

1925, 63, 687

Compounds, blood, nature (GREENWALD)

1926, 67, 1

—, —, tetany relation (GREENWALD)

1926, 67, 1

-Depositing substances, biological test (McCOLLUM, SIMMONDS, SHIPLEY, and PARK)

1922, 51, 41

Deposition, bones, rickets, hematoporphyrin effect (VAN LEERSUM)

1923-24, 58, 835

—, vitamin promoting (McCOLLUM, SIMMONDS, BECKER, and SHIPLEY)

1922, 53, 293

Determination, animal substances (DIENES)

1924, 61, 77

—, blood, oxalated (ROTHWELL)

1927, 74, 257

Calcium—continued:

- Determination, blood serum. KRAMER-TISDALL method (TISDALL) 1923, 56, 439
- , bone (KRAMER and HOWLAND) 1926, 68, 711
- , colorimetric, blood (ROE and KAHN) 1926, 67, 585
- , —, micro, blood plasma (KUTTNER and COHEN) 1927, 75, 517
- , —, —, cerebrospinal fluid (KUTTNER and COHEN) 1927, 75, 517
- , —, —, pus (KUTTNER and COHEN) 1927, 75, 517
- , feces (CORLEY and DENIS) 1925, 66, 601
- , milk (CORLEY and DENIS) 1925, 66, 601
- , tissues (CORLEY and DENIS) 1925, 66, 601
- Diffusibility, blood serum (LOEB and NICHOLS) 1927, 72, 687
- , — —, dialysis effect (LOEB and NICHOLS) 1927, 74, 645
- , — —, ether extraction effect (LOEB and NICHOLS) 1927, 74, 645
- Distribution, rickets (McCANN and BARNETT) 1922, 54, 203
- Egg-shell formation (BUCKNER, MARTIN, PIERCE, and PETER) 1922, 51, 51

Calcium—continued:

- Excretion, calcium chloride and sodium phosphate injection effect (GREENWALD and GROSS) 1925, 66, 201
- , — — injection effect (GREENWALD and GROSS) 1925, 66, 201
- , feces, potassium influence (MILLER) 1926, 70, 593
- , parathyroid extract effect (GREENWALD and GROSS) 1925, 66, 217
1926, 68, 325
- , potassium influence (MILLER) 1926, 67, 71
- , sodium phosphate injection effect (GREENWALD and GROSS) 1925, 66, 201
- , thyroparathyroidectomy effect (GREENWALD and GROSS) 1925, 66, 185
- , urine, potassium influence (MILLER) 1926, 70, 593
- Fat-soluble vitamin and, blood composition, relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71
- — —, bone composition, relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71
- — —, growth relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71

Calcium—continued:

- Feces, determination
(CORLEY and DENIS)
1925, 66, 601
- Femur ash, parathyroidectomy effect (HAMMETT)
1923, 57, 285
- , thyroparathyroidectomy effect (HAMMETT)
1923, 57, 285
- Gastric juice, parathyroid hormone effect (AUSTIN)
1927, 74, lxiv
- High, phosphorus-low diets, rickets, metabolism effect (KARELITZ and SHOHL)
1927, 73, 655
- Humerus ash, parathyroidectomy effect (HAMMETT)
1923, 57, 285
- , thyroparathyroidectomy effect (HAMMETT)
1923, 57, 285
- Intestine, antirachitic vitamin effect (YODER)
1927, 74, 321
- Magnesium and, metabolism (BOGERT and McKITTRICK)
1922, 54, 363
- Metabolism (MEDES)
1926, 67, xxxii
- , acid-forming diets, effect (BOGERT and KIRKPATRICK)
1922, 54, 375
- , base-forming diets, effect (BOGERT and KIRKPATRICK)
1922, 54, 375
- , chaulmoogra oil influence (READ)
1924-25, 62, 515
- , childhood (SHERMAN and HAWLEY)
1922, 53, 375

Calcium—continued:

- Metabolism, cod liver oil influence (SJOLLEMA)
1923, 57, 255
- , cows (MEIGS and TURNER)
1925, 63, xxix
- , crude fiber influence (SJOLLEMA)
1923, 57, 271
- , dairy cows. II (TURNER, HARDING, and HARTMAN)
1927, 74, xxvii
- , —, clover and alfalfa hay effect (TURNER, HARDING, and HARTMAN)
1927, 74, xxvii
- , magnesium and (BOGERT and McKITTRICK)
1922, 54, 363
- , milking cows, ultraviolet light influence (HART, STEENBOCK, SCOTT, and HUMPHREY)
1927, 73, 59
- , protein influence (SJOLLEMA)
1923, 57, 271
- , rickets, restricted food intakes (SHOHL and BENNETT)
1927, 74, 247
- , thyroparathyroidectomy, calcium salts administration effect (GREENWALD)
1926, 67, 1
- , —, sodium phosphate administration effect (GREENWALD)
1926, 67, 1
- , zinc metabolism, normal, relation (FAIRHALL)
1926, 70, 495

Calcium—continued:

- Milk, compounds, solubility, heat effect (BELL) 1925, 64, 391
- , determination (CORLEY and DENIS) 1925, 66, 601
- , evaporated and pasteurized, as source, comparison (WILLARD and BLUNT) 1927, 75, 251
- , precipitation, direct (ROTHWELL) 1925, 65, 129
1927, 75, 23
- Protein and, blood serum, parathyroid tetany, relation (SALVESEN and LINDER) 1923-24, 58, 635
- Pus, determination, colorimetric, micro (KUTTNER and COHEN) 1927, 75, 517
- Retention, orange juice effect, children (CHANEY and BLUNT) 1925, 66, 829
1926, 67, xxxi
- Rickets, distribution (McCANN and BARNETT) 1922, 54, 203
- Spinach, utilization (McLAUGHLIN) 1927, 74, 455
- Tissue, determination (CORLEY and DENIS) 1925, 66, 601
- , excessive calcium ingestion and ultra-violet light exposure, effect (DENIS and CORLEY) 1925, 66, 609
- , — — — effect (DENIS and CORLEY) 1925, 66, 609

Calcium—continued:

- Utilization, almonds (ROSE and MACLEOD) 1923, 55, xxiv
1923, 57, 305
- , spinach (McLAUGHLIN) 1927, 74, 455
- , vegetables, by man (BLATHERWICK and LONG) 1922, 52, 125
- Calcium carbonate:**
 - Solubility (SENDROY and HASTINGS) 1926-27, 71, 797
 - , biological fluids (HASTINGS, MURRAY, and SENDROY) 1926-27, 71, 723
 - , salt solutions (HASTINGS, MURRAY, and SENDROY) 1926-27, 71, 723
- Calcium chloride:**
 - Calcium excretion, injection effect (GREENWALD and GROSS) 1925, 66, 201
 - Fibrin precipitation (HOWE) 1923, 57, 235
 - Magnesium excretion, injection effect (GREENWALD and GROSS) 1925, 66, 201
 - Phosphorus excretion, injection effect (GREENWALD and GROSS) 1925, 66, 201
 - Sodium phosphate and, calcium excretion, injection effect (GREENWALD and GROSS) 1925, 66, 201
 - — —, magnesium excretion, injection effect (GREENWALD and GROSS) 1925, 66, 201

Calcium chloride—continued:

Sodium phosphate and,
phosphorus excretion,
injection effect (GREEN-
WALD and GROSS)
1925, 66, 201

Calcium ion:

Buffer values, determina-
tion (KUGELMASS)

1924, 60, 237

Concentration, buffer
mechanism (KUGEL-
MASS) 1924, 60, 237

Equilibrium determination
(KUGELMASS and SHOHL)
1923-24, 58, 649

Calcium phosphate (s):

Blood serum, solubility
(GREENWALD and
GROSS)

1925, 66, 217

Calcium balance effect,
hay and, milking cows
(HART, STEENBOCK,
HOPPERT, BETHKE, and
HUMPHREY)

1922, 54, 75

Equilibrium (HOLT, LA
MER, and CHOWN)

1925, 64, 567

Phosphorus balance effect,
hay and, milking cows
(HART, STEENBOCK,
HOPPERT, BETHKE, and
HUMPHREY)

1922, 54, 75

Secondary, solubility prod-
uct (HOLT, LA MER,
and CHOWN)

1925, 64, 509

Solubility, protein influ-
ence (CSAPO)

1927, 75, 509

Tertiary, cerebrospinal
fluid, solubility (HOLT)

1925, 66, 23

**Calcium phosphate(s)—contin-
ued:**

Tertiary, solubility (SEND-
ROY and HASTINGS)

1926-27, 71, 797

—, —, biological fluids
(SENDROY and HAST-
INGS)

1926-27, 71, 783

—, — product (HOLT, LA
MER, and CHOWN)

1925, 64, 509

—, —, salt solutions (SEND-
ROY and HASTINGS)

1926-27, 71, 783

Calcium salts:

Absorption, intestine, solu-
bility, relation (IRVING)

1926, 68, 513

Availability (STEENBOCK,
HART, SELL, and JONES)

1923, 56, 375

Blood, inorganic composi-
tion, administration
effect (SALVESEN, HAST-
INGS, and McINTOSH)

1924, 60, 327

— serum calcium, influence
(HJORT)

1925, 65, 783

— — —, thyroparathyro-
privic dogs, influence
(HJORT)

1925, 65, 783

Calcium metabolism, thy-
roparathyroidectomy
effect (GREENWALD)

1926, 67, 1

Phosphorus metabolism,
thyroparathyroidectomy
effect (GREENWALD)

1926, 67, 1

Solubility. I (HASTINGS,
MURRAY, and SENDROY)

1926-27, 71, 723

Calcium salts—continued:

Solubility. II (SENDROY
and HASTINGS)

1926-27, 71, 783

III (SENDROY and HAST-
INGS)

1926-27, 71, 797

—, intestinal absorption,
relation (IRVING)

1926, 68, 513

Calorimeter:

Portable, carbon dioxide
determination (McCLEN-
DON, HUMPHREY, and
LOUCKS)

1926, 69, 513

—, oxygen determination
(McCLENDON, HUM-
PHREY, and LOUCKS)

1926, 69, 513

Small animals (FOSTER and
SUNDSTROEM)

1926, 69, 565

Calorimetry:

Animal. XXII (ATKIN-
SON, RAPPORT, and
LUSK)

1922, 53, 155

XXIII (RINGER and
RAPPORT)

1923-24, 58, 475

XXIV (LUSK)

1924, 59, 41

XXV (RAPPORT)

1924, 60, 497

XXVI (WEISS and RAP-
PORT)

1924, 60, 513

XXVII (CSONKA)

1924, 60, 545

XXVIII (RAPPORT,
WEISS, and CSONKA)

1924, 60, 583

XXIX (WIERZUCHOW-
SKI and LING)

1925, 64, 697

XXX (CHAMBERS and
DEUEL)

1925, 65, 21

Calorimetry—continued:

Animal. XXXI (WIER-
ZUCHOWSKI)

1926, 68, 385

XXXII (DEUEL, WAD-
DELL, and MANDEL)

1926, 68, 801

XXXIII (DEUEL, CHAM-
BERS, and MILHORAT)

1926, 69, 249

XXXIV (PLUMMER,
DEUEL, and LUSK)

1926, 69, 339

XXXV (DEUEL, WIL-
SON, and MILHORAT)

1927, 74, 265

XXXVI (CHAMBERS,
DEUEL, and MILHORAT)

1927, 75, 423

Clinical. XXXIII (RICH-
ARDSON and MASON)

1923, 57, 587

XXXIV (RICHARDSON
and LADD)

1923-24, 58, 931

XXXV (DU BOIS)

1924, 59, 43

XXXVI (MICHAELIS)

1924, 59, 51

XXXVII (RICHARDSON
and LEVINE)

1925, 63, 465

XXXVIII (LADD and
RICHARDSON)

1925, 63, 681

XXXIX (RICHARDSON
and LEVINE)

1925, 66, 161

XL (RICHARDSON)

1926, 67, 397

XLI (RICHARDSON,
LEVINE, and DU BOIS)

1926, 67, 737

Camel:

Colostrum (FALES)

1922, 53, 339

Urine (READ)

1925, 64, 615

Canavalia ensiformis:

See Bean, jack.

Cane-sugar:

See Sugar.

Canna:Starch, raw, digestibility
(LANGWORTHY and
DEUEL)

1922, 52, 251

Cantaloupe:*Cucumis melo*, seed, globulin, crystalline, isolation
(JONES and GERSDORFF)

1923, 56, 79

— — —, proteins (JONES
and GERSDORFF)

1923, 56, 79

Capillary exchange:

(HENDERSON and MURRAY)

1925, 65, 407

Caproic acid:

Catabolism (DAKIN)

1923, 56, 43

Derivatives, catabolism
(DAKIN)

1923, 56, 43

—, lysine synthesis
(MCGINTY, LEWIS, and
MARVEL)

1924-25, 62, 75

Carbinol(s):Acetylmethyl, *Clostridium acetobutylicum* production (WILSON, PETERSON, and FRED)

1927, 74, 495

Dextro-methylethyl, dextro-lactic acid, configurational relationship
(LEVENE, WALTI, and
HALLER)

1926-27, 71, 465

Methylethyl and methylpropyl, configurational relationships (LEVENE, HALLER, and WALTI)

1927, 72, 591

Carbinol(s)—continued:Secondary, Walden inversion (LEVENE and
MIKESKA)

1927, 75, 587

Triphenyl-, fate, animal body (MIRIAM, WOLF, and SHERWIN)

1926-27, 71, 695

Carbohydrate(s):Acetone fermentation
(ROBINSON)

1922, 53, 125

Asparagus officinalis seed
(CAKE and BARTLETT)

1922, 51, 93

Blood, disappearance rate
(REINHOLD and KARR)

1927, 72, 345

Butyl alcohol fermentation
(ROBINSON)

1922, 53, 125

Calcium absorption and
(BERGEIM)

1926, 70, 35

Calories, graphic representation (DU BOIS)

1924, 59, 43

-Deficient diet, preformed, growth (OSBORNE and MENDEL)

1924, 59, 13, xlv

— — —, nutrition (OSBORNE and MENDEL)

1924, 59, 13, xlv

Diet, blood uric acid, influence (HARDING, ALLIN, and EAGLES)

1927, 74, 631

—, low, low nitrogen metabolism with, in diabetes
(PETRÉN)

1924, 61, 355

Excretion (FOLIN and BERGLUND)

1922, 51, 213

Carbohydrate(s)—continued:

Fat and, oxidation (LUSK)
1924, 59, 41

— formation from, new
dietary factor, relation-
ship (WESSON)

1927, 73, 507

— —, relation (WESSON)

1927, 73, 507

Folin and Berglund obser-
vations, discussion
(BENEDICT and OSTER-
BERG) 1923, 55, 769

-High diet, growth (SMITH
and CAREY)

1923-24, 58, 425

— —, thyroxine effect
(SANDIFORD and SANDI-
FORD) 1927, 74, li

Metabolism. III (NEU-
WIRTH)

1922, 51, 11

I (FOSTER)

1923, 55, 291

II (FOSTER)

1923, 55, 303

XXI (UNDERHILL and
WILENS)

1923-24, 58, 153

II (LUNDGAARD and
HOLBØLL)

1925, 65, 305

III (LUNDGAARD and
HOLBØLL)

1925, 65, 323

IV (LUNDGAARD and
HOLBØLL)

1925, 65, 343

V (LUNDGAARD and
HOLBØLL)

1925, 65, 363

VI (LUNDGAARD and
HOLBØLL)

1926, 68, 457

VII (LUNDGAARD and
HOLBØLL)

1926, 68, 475

Carbohydrate(s)—continued:

Metabolism. VIII (LUND-
GAARD and HOLBØLL)

1926, 68, 485

IX (LUNDGAARD and
HOLBØLL)

1926, 70, 71

X (LUNDGAARD, HOL-
BØLL, and GOTTSCHALK)

1926, 70, 79

XI (LUNDGAARD, HOL-
BØLL, and GOTTSCHALK)

1926, 70, 83

XII (LUNDGAARD, HOL-
BØLL, and GOTTSCHALK)

1926, 70, 89

—, adrenalectomy effect
(CORI and CORI)

1927, 74, 473

—, blood phosphates, rela-
tion (BOLLIGER and
HARTMAN)

1925, 63, lvi

1925, 64, 91

—, inorganic substances,
participation (HARROP
and BENEDICT)

1924, 59, 683

—, insulin effect (BLATHER-
WICK, BELL, and HILL)

1924, 59, xxxv

1924, 61, 241

—, intermediary. I

(WIERZUCHOWSKI)

1926, 68, 631

II (WIERZUCHOWSKI)

1927, 73, 417

III (WIERZUCHOWSKI)

1927, 73, 445

—, intermediate, by insulin
(VOEGTLIN, DUNN, and
THOMPSON)

1924, 59, xxxvii

—, ketonuria, fasting, rela-
tion (CORI and CORI)

1927, 72, 615

Carbohydrate(s)—continued:

Metabolism, pancreatectomy, pancreas extract, aqueous, influence (MURLIN, CLOUGH, GIBBS, and STOKES)

1923, 56, 253

—, tumors. I (CORI and CORI)

1925, 64, 11

II (CORI and CORI)

1925, 65, 397

Oxidation, fat and (LUSK)

1924, 59, 41

—, phlorhizinized dogs (WILSON)

1927, 74, xxxix

Phosphorus absorption and, intestine (BERGEIM)

1926, 70, 35

Renal glycosuria, utilization (LADD and RICHARDSON)

1925, 63, 681

Respiratory metabolism following administration (DEUEL)

1927, 75, 367

Retention (FOLIN and BERGLUND)

1922, 51, 213

Specific, Friedländer bacillus, Type A, hydrolytic products (GOEBEL)

1927, 74, 619

Tolerance (BERGLUND and NI)

1925, 63, lxviii

—, chloroform poisoning effect (BODANSKY)

1923-24, 58, 515

—, phosphorus poisoning effect (BODANSKY)

1923-24, 58, 515

Transportation (FOLIN and BERGLUND)

1922, 51, 213

Carbohydrate(s)—continued:

Uric acid, endogenous, elimination, influence (LEWIS and CORLEY)

1923, 55, 373

Urine, normal (GREENWALD)

1923, 55, xiv

Utilization. I (DU VIGNEAUD and KARR)

1925, 66, 281

II (REINHOLD and KARR)

1927, 72, 345

—, circulation changes, effect (CAJORI, CROUTER, and PEMBERTON)

1925, 66, 89

—, fasting effect (SEVRINGHAUS)

1925, 63, lxviii

—, rats deprived of vitamin B (MATTELL)

1923, 55, 717

—, renal glycosuria (LADD and RICHARDSON)

1925, 63, 681

Carbon:

Cellulose decomposition, filamentous fungi, transformation in (HEUKELKIAN and WAKSMAN)

1925, 66, 323

Colloidal solutions, preparation (LOONEY)

1927, 74, lxiii

—, use (LOONEY)

1927, 74, lxiii

Transformation, cellulose decomposition, filamentous fungi (HEUKELKIAN and WAKSMAN)

1925, 66, 323

Carbon dioxide:

Absorption curve, blood, acid-base-protein equilibrium, temperature effect (STADIE, AUSTIN, and ROBINSON)

1925, 66, 901

— —, —, construction (PETERS, BULGER, and EISENMAN)

1923-24, 58, 769

— —, —, hemoglobin relation (PETERS, BULGER, and EISENMAN)

1923-24, 58, 747

— —, —, human. I (PETERS, BULGER, and EISENMAN)

1923, 55, 687

II (PETERS, EISENMAN, and BULGER)

1923, 55, 709

III (PETERS)

1923, 56, 745

IV (PETERS, BULGER, and EISENMAN)

1923-24, 58, 747

V (PETERS, BULGER, and EISENMAN)

1923-24, 58, 769

VI (PETERS, BULGER, and EISENMAN)

1923-24, 58, 773

— —, —, serum, acid-base-protein equilibrium, temperature effect (STADIE, AUSTIN, and ROBINSON)

1925, 66, 901

Acid and oxygen, interaction, blood (HILL)

1922, 51, 359

Air, sampling (CARPENTER and FOX)

1927, 73, 379

Alveolar, tension changes, pregnancy (ROWE)

1923, 55, xxviii

Carbon dioxide—continued:

-Bicarbonate ratio, hydrogen ion concentration, blood, carcinoma (CHAMBERS and KLEIN-SCHMIDT)

1923, 55, 257

Blood (LUNDGAARD and MÖLLER)

1923, 55, 315

— and plasma, relation (PETERS, BULGER, and EISENMAN)

1923-24, 58, 773

—, arterial (STEWART)

1924-25, 62, 641

—, carbon dioxide and oxygen tension effect (PETERS, CULLEN, and AUSTIN)

1922, 54, 149

— cells and serum, distribution between, ether effect *in vitro* (AUSTIN and GRAM)

1924, 59, 535

—, determination, micro (RAFFEL)

1927, 74, 839

—, exercise effect (LUNDGAARD and MÖLLER)

1923, 55, 315, 477

—, venous, mixed (STEWART)

1924-25, 62, 641

— plasma, kidney function influence (MURRAY and HASTINGS)

1925, 65, 265

— —, respiration influence (MURRAY and HASTINGS)

1925, 65, 265

— serum, ether presence, determination, Van Slyke method (AUSTIN)

1924, 61, 345

Carbon dioxide—continued:

Capacity, body, buffering
of tissues, indication
(BOCKLEHURST and
HENDERSON)

1927, 72, 665

—, — fluids, honey bee,
larval activity, changes
(BISHOP)

1923-24, 58, 543

—, — —, — bee, meta-
morphosis, changes
(BISHOP)

1923-24 58, 543

-Combining power, blood,
tumor passage effect
(CORI and CORI)

1925, 65, 397

Curves, blood, hemoglobin
and sodium bicarbonate
mixture (ADAIR)

1925, 63, 515

Determination, blood
serum, ether presence,
Van Slyke method
(AUSTIN)

1924, 61, 345

—, fermenting mixtures
(RAYMOND and WINE-
GARDEN)

1927, 74, 189

—, metabolism (LEE and
BROWN)

1927, 73, 69

—, portable calorimeter
(MCCLENDON, HUM-
PHREY, and LOUCKS)

1926, 69, 513

Dissociation curve, blood
(BOCK, FIELD, and
ADAIR)

1924, 59, 353

Dissolved, determination
(HALL)

1923, 55, 751

Carbon dioxide—continued:

Egg segmentation, sea
urchin, influence
(CLOWES and SMITH)

1923, 55, xix

Equilibrium, alveolar air
(BOCK and FIELD)

1924-25, 62, 269

II (DILL, HURXTHAL, VAN
CAULAERT, FÖLLING, and
BOCK)

1927, 74, 303

III (DILL, LAWRENCE,
HURXTHAL, and BOCK)

1927, 74, 313

—, — —, exercising sub-
jects (DILL, LAWRENCE,
HURXTHAL, and BOCK)

1927, 74, 313

—, — —, resting subjects
(DILL, HURXTHAL, VAN
CAULAERT, FÖLLING,
and BOCK)

1927, 74, 303

—, arterial blood (BOCK
and FIELD)

1924-25, 62, 269

II (DILL, HURXTHAL,
VAN CAULAERT, FÖL-
LING, and BOCK)

1927, 74, 303

III (DILL, LAWRENCE,
HURXTHAL, and BOCK)

1927, 74, 313

—, — —, exercising sub-
jects (DILL, LAWRENCE,
HURXTHAL, and BOCK)

1927, 74, 313

—, — —, resting subjects
(DILL, HURXTHAL, VAN
CAULAERT, FÖLLING,
and BOCK)

1927, 74, 303

Factors, manometric blood
gas apparatus (VAN
SLYKE and SENDROY)

1927, 73, 127

Carbon dioxide—continued:

Fermenting mixtures,
determination (RAY-
MOND and WINEGARDEN)
1927, 74, 189

Heat production, ratio,
cattle (BRAMAN)
1924, 60, 79

Hemoglobin and, equi-
librium (ADAIR)
1925, 63, 503

Hydrogen ion concentra-
tion determination,
colorimetric and electro-
metric, comparison
(CULLEN and HASTINGS)
1922, 52, 517

Metabolism, determination
(LEE and BROWN)
1927, 73, 69

Oxygen and acid, inter-
action, blood (HILL)
1922, 51, 359

Paraffin oil as solvent
(RAFFEL)
1927, 74, 839

Solubility, mineral oil
(KUBIE)
1927, 72, 545

Tension, blood carbon
dioxide effect (PETERS,
CULLEN, and AUSTIN)
1922, 54, 149

—, cerebrospinal fluid
(SHOHL and KARELITZ)
1926, 67, xxvii
1926-27, 71, 119

—, plasma acids, oxygen-
ated blood, effect on
concentration (EISEN-
MAN, BULGER, and
PETERS)
1926, 67, 159

Transfer, oil to air (KUBIE)
1927, 72, 545

Carbon dioxide—continued:

Transport, bloods contain-
ing hemocyanin (RED-
FIELD, COOLIDGE, and
HURD)
1926, 69, 475

Urine, loss, hydrogen ion
concentration, effect
(MARSHALL)
1922, 51, 3

Yeast metabolism (BROWN
and BALLS)
1924-25, 62, 823

Carbon monoxide:

Blood, determination,
gasometric (VAN SLYKE
and ROBSCHT-ROB-
BINS)
1927, 72, 39

Hemoglobin acidity, effect
(HASTINGS, SENDROY,
MURRAY, and HEIDEL-
BERGER)
1924, 61, 317

Carbon tetrachloride:

Acid-base balance, blood,
effect (LAMSON and
WING)
1926, 69, 349

Carbonate:

-Carbonic acid, equi-
librium, sea water
(IRVING)
1925, 63, 767

Determination, bone
(KRAMER and HOWLAND)
1926, 68, 711

Carbonate ion:

Blood plasma, kidney func-
tion influence (MURRAY
and HASTINGS)
1925, 65, 265

—, respiration influence
(MURRAY and HAST-
INGS)
1925, 65, 265

Equilibrium determination
(KUGELMASS and SHOHL)
1923-24, 58, 649

Carbonic acid:

-Carbonate equilibrium,
sea water (IRVING)

1925, 63, 767

Dissociation constant,
apparent first (STADIE
and HAWES)

1927, 74, xxxi

—, —, ionic strength
variation effect (HAST-
INGS and SENDROY)

1925, 65, 445

—, —, second, ionic
strength variation effect
(HASTINGS and SEND-
ROY)

1925, 65, 445

Equilibrium, body (MUR-
RAY and HASTINGS)

1925, 65, 265

Urine (GAMBLE)

1922, 51, 295

Carboxylic acid(s):

2-Hydroxy-, Walden inver-
sion (LEVENE, MORI,
and MIKESKA)

1927, 75, 337

l-Pyrrolidone-, acid stabil-
ity (BETHKE and STEEN-
BOCK)

1923-24, 58, 105

—, alkali stability (BETHKE
and STEENBOCK)

1923-24, 58, 105

—, metabolism (BETHKE
and STEENBOCK)

1923-24, 58, 105

Sulfo-, free acids, optical
rotations (LEVENE and
MIKESKA)

1925, 63, 85

Thio-, free acids, optical
rotation (LEVENE and
MIKESKA)

1925, 63, 85

—, salts, optical rotations
(LEVENE and MIKESKA)

1925, 63, 85

Carboxylic acid(s)—continued:

2-Thiol-, oxidation to
corresponding sulfonic
acids (LEVENE, MORI,
and MIKESKA)

1927, 75, 337

3, 4, 5-Triiodophenylpyrro-
lidone, synthesis (HAR-
INGTON)

1925, 64, 29

Carboxylic sugar acids:

Di-, lactone formation
(LEVENE and SIMMS)

1925, 65, 31

Mono-, lactone formation
(LEVENE and SIMMS)

1925, 65, 31

Carcinoma:

Blood, hydrogen ion con-
centration. I (CHAM-
BERS)

1923, 55, 229

II (CHAMBERS and
KLEINSCHMIDT)

1923, 55, 257

Flexner-Jobling, lipase
action (FALK, NOYES,
and SUGIURA)

1924, 59, 183

—, protease action (FALK,
NOYES, and SUGIURA)

1924, 59, 183

Carotene:

Adsorption, charcoals
(WILLIMOTT)

1927, 73, 587

—, inorganic salts (WILLI-
MOTT)

1927, 73, 587

Color cause in *Perillus*
bioculatus (PALMER and
KNIGHT)

1924, 59, 443

Leptinotarsa decemlineata
lymph, color cause in

Perillus bioculatus
(PALMER and KNIGHT)

1924, 59, 443

Casein:

Amino acids, basic
(LEAVENWORTH)

1924, 61, 315

Cystine determination,
colorimetric (SULLIVAN)

1927, 74, xiv

Deaminized, tyrosine
(LEWIS and UPDEGRAFF)

1923, 56, 405

Scission, hydrolytic, hydro-
gen ion concentration
influence (CARPENTER)

1926, 67, 647

—, —, temperature influ-
ence (CARPENTER)

1926, 67, 647

Cassava:

Starch, raw, digestibility
(LANGWORTHY and
DEUEL)

1922, 52, 251

Catabolism:

Amino acid. I (CORLEY)

1926, 70, 99

Caproic acid and deriva-
tives (DAKIN)

1923, 56, 43

Endogenous, non-protein
constituents, tissues, re-
lation (MITCHELL,
NEVENS, and KENDALL)

1922, 52, 417

Protein, histamine effect
(HILLER)

1926, 68, 847

Catalase:

Activity, temperature
effect (MORGULIS, BE-
BER, and RABKIN)

1926, 68, 535

Determinations, tempera-
ture correction (MOR-
GULIS and BEBER)

1927, 72, 91

Catalase—continued:

Reaction, temperature and
hydrogen ion concentra-
tion, effect (MORGULIS,
BEBER, and RABKIN)

1926, 68, 547

—, — — peroxide con-
centration, effect (MOR-
GULIS, BEBER, and RAB-
KIN)

1926, 68, 521

—, — effect. I (MOR-
GULIS, BEBER, and RAB-
KIN)

1926, 68, 521

II (MORGULIS, BEBER,
and RABKIN)

1926, 68, 535

III, IV (MORGULIS, BE-
BER, and RABKIN)

1926, 68, 547

V (MORGULIS and BE-
BER)

1927, 72, 91

—, theory (MORGULIS,
BEBER, and RABKIN)

1926, 68, 547

Catalysis:

Iron salts, mechanism. I
(BAUDISCH and WELO)

1924, 61, 261

Catatonic precox:

Muscle rigidity, para-
thyroid hormone control
(LOONEY)

1926, 67, xxxvii

Cation(s):

Blood serum (PINCUS and
KRAMER)

1923, 57, 463

Cerebrospinal fluid (PIN-
CUS and KRAMER)

1923, 57, 463

Protein precipitation, in-
fluence (HOWE)

1923, 57, 241

Cauliflower:

Nitrogen, bud. I (McKEE
and SMITH)

1926, 70, 273

Cauliflower—continued:

Protein fractions, bud
(McKEE and SMITH)
1926, 70, 273

Cell:

Blood. *See* Blood cell.
Leaf, protoplasm extrac-
tion (CHIBNALL)

1923, 55, 333

—, vacuole extraction
(CHIBNALL)

1923, 55, 333

Living, colloidal proper-
ties of surface. I
(McCLENDON)

1926, 68, 653

II (McCLENDON)

1926, 69, 733

Metabolism, putrefaction
products, influence. II
(HIJIKATA)

1922, 51, 141

Thyroid gland, iodine dis-
tribution. IV (VAN
DYKE)

1922, 54, 11

Cellulase:

Ship-worm (BOYNTON and
MILLER)

1927, 75, 613

Cellulose:

Carbon transformation in
decomposition by fila-
mentous fungi (HEUKE-
LEKIAN and WAKSMAN)

1925, 66, 323

Nitrogen transformation in
decomposition by fila-
mentous fungi (HEUKE-
LEKIAN and WAKSMAN)

1925, 66, 323

Central nervous system:

Ether in, and in arterial
blood, relation (HAG-
GARD)

1924, 59, 771

Cephalin:

Brain, fatty acids, unsat-
urated (LEVENE and
ROLF)

1922, 54, 91

Corpus luteum (HART and
HEYL)

1926, 70, 675

Lyso- (LEVENE and ROLF)

1923, 55, 743

II (LEVENE, ROLF, and
SIMMS)

1923-24, 58, 859

—, isolation (LEVENE,
ROLF, and SIMMS)

1923-24, 58, 859

—, properties (LEVENE,
ROLF, and SIMMS)

1923-24, 58, 859

Preparation (LEVENE and
ROLF)

1927, 74, 713

Soy bean (LEVENE and
ROLF)

1924-25, 62, 759

1926, 68, 285

Cerebronic acid:

Structure (LEVENE and
TAYLOR)

1922, 52, 227

Cerebrospinal fluid:

Anions (PINCUS and
KRAMER)

1923, 57, 463

Calcium determination,
colorimetric, micro
(KUTTNER and COHEN)

1927, 75, 517

—, parathyroid tetany
(CAMERON and MOOR-
HOUSE)

1925, 63, 687

— phosphate, tertiary,
solubility (HOLT)

1925, 66, 23

Cerebrospinal fluid—continued:

Carbon dioxide tension
(SHOHL and KARELITZ)
1926, 67, xxvii
1926-27, 71, 119

Cations (PINCUS and
KRAMER)
1923, 57, 463

Hydrogen ion concentra-
tion determination
(SHOHL and McQUAR-
RIE) 1925, 63, xii
— — — —, colorimetric
(McQUARRIE and SHOHL)
1925, 66, 367

Inorganic substances,
blood serum and, com-
parison (HAMILTON)
1925, 65, 101

Insulin injected into,
effect (SUPNIEWSKI,
ISHIKAWA, and GEIL-
ING) 1927, 74, 241

Lactic acid (GLASER)
1926, 69, 539

Phosphate determination,
colorimetric, micro
(KUTTNER and COHEN)
1927, 75, 517

Protein, determination
(LING)
1926, 69, 397

—, typhus fever, increase
(LING)
1926, 69, 397

Reducing substance, in-
sulin effect (KASAHARA
and UETANI)
1924, 59, 433

Sugar curves, cerebrospinal
rhinorrhea, glucose in-
gestion (GIBSON and
DULANEY)
1926, 67, lxi

—, Folin-Wu and Benedict
methods, comparison
(LYTTLE and HEARN)
1926, 68, 751

Ceruleomolybdate:

Phosphate-phosphorus de-
termination (GILBERT
and SMITH)
1927, 74, 223

Cesium:

Creatinine picrate (GREEN-
WALD and GROSS)
1924, 59, 613

Charcoal:

Carotene adsorption
(WILLIMOTT)
1927, 73, 587

Chaulmoogra oil:

Calcium metabolism, influ-
ence (READ)
1924-25, 62, 515
Metabolism. I (READ)
1924-25, 62, 515
II (READ)
1924-25, 62, 541

Chemical constitution:

Aliphatic diazo com-
pounds, asymmetry. II
(LEVENE and MIKESKA)
1922, 52, 485

III (LEVENE and MIK-
ESKA) 1922, 54, 101

IV (LEVENE and MIK-
ESKA) 1923, 55, 795

2-Aminohexonic acids, con-
figuration (LEVENE)
1925, 63, 95

2-Aminohexoses, configur-
ation (LEVENE)
1925, 63, 95

2, 5-Anhydrotetroxyadipic
acids (LEVENE and
SIMMS)
1925, 63, 351

Cardiac aglucones, lactone
group double bond
(JACOBS, HOFFMANN,
and GUSTUS)
1926, 70, 1

Chemical constitution—continued:

- Cardiac glucosides, biological action, relationship (JACOBS and HOFFMANN) 1927, 74, 787
- poisons, relationship (JACOBS and HOFFMANN) 1926, 67, 333
- Cerebronic acid, α -hydroxyisopentacosanic acid synthesis, relation (LEVENE and TAYLOR) 1922, 52, 227
- Dextro-methylethyl carbinol and dextro-lactic acid, configurational relationship (LEVENE, WALTI, and HALLER) 1926-27, 71, 465
- Diacetone glucose. II (LEVENE and MEYER) 1924, 60, 173
- Dialkylacetic acids, configurational relationship (LEVENE and BASS) 1926, 70, 211
- Fucose (CLARK) 1922, 54, 65
- Glucose (LEVENE and SIMMS) 1926, 68, 737
- Hederagenin (JACOBS) 1925, 63, 631
- Hydroxy acids, configurational relationship (LEVENE and HALLER) 1925, 65, 49
- I (LEVENE and HALLER) 1926, 69, 165
- II (LEVENE and HALLER) 1926, 69, 569
- α -Hydroxy acids and secondary alcohols, configurational relationship (LEVENE and HALLER) 1925, 65, 49

Chemical constitution—continued:

- β -Hydroxybutyric acid and propylene glycol, configurational relationship (LEVENE and WALTI) 1926, 68, 415
- 2-Hydroxybutyric and lactic acids, configurational relationship (LEVENE and HALLER) 1927, 74, 343
- (CLOUGH) 1927, 75, 489
- Insulin (BRAND and SANDBERG) 1926, 70, 381
- Lactose, lactone formation, relation (LEVENE and SOBOTKA) 1926-27, 71, 471
- (LEVENE and WINTERSTEINER) 1927, 75, 315
- Maltose, lactone formation, relation (LEVENE and SOBOTKA) 1926-27, 71, 471
- Melibiose, lactone formation, relation (LEVENE and WINTERSTEINER) 1927, 75, 315
- Methylethyl and methylpropyl carbinols, configurational relationship (LEVENE, HALLER, and WALTI) 1927, 72, 591
- Nucleic acid, from electrometric titration data (LEVENE and SIMMS) 1926, 70, 327
- —, plant nucleoside dissociation constants, relation (LEVENE and SIMMS) 1925, 65, 519

Chemical constitution—continued:

Nucleic acid, plant nucleotide dissociation constants, relation (LEVENE and SIMMS)

1925, 65, 519

Peptides, hydrolysis rate, relation. I (LEVENE, SIMMS, and PFALTZ)

1924, 61, 445

II (LEVENE and SIMMS)

1924-25, 62, 711

III (LEVENE, SIMMS, and PFALTZ)

1926, 70, 253

Propylene glycol and β -hydroxybutyric acid, configurational relationship (LEVENE and WALT)

1926, 68, 415

Pyrimidine nucleosides, pyrimidine ionization, relation (LEVENE, BASS, and SIMMS)

1926, 70, 229

Strophanthidin, double bond (JACOBS and COLLINS)

1925, 64, 383

Sugars and acid, production by *Bacillus granulobacter pectinovorum* (SPEAKMAN)

1923-24, 58, 395

Thiasine (NEWTON, BENEDICT, and DAKIN)

1927, 72, 367

Thyroxine (KENDALL)

1926, 67, iii

Chemical defense:

Mechanism, fowl (CROWDIE and SHERWIN)

1923, 55, 15

Chemical development:

Age and, mammals (MOULTON)

1923, 57, 79

Children:

Basal metabolism (SANDFORD and HARRINGTON)

1925, 63, xxxv

(MACLEOD and ROSE)

1926, 67, xix

Calcium metabolism

(SHERMAN and HAWLEY)

1922, 53, 375

— retention, orange juice effect (CHANNEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

Creatine-creatinine excretion, high protein diet (HARDING and GAEBLER)

1922, 54, 579

Hemoglobin, blood, egg administration effect (ROSE)

1926, 67, xx

Magnesium retention, orange juice effect (CHANNEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

Metabolism (BAUER and BLUNT)

1924, 59, 77

(WANG, KERN, FRANK, and DUNWIDDIE)

1925, 63, lxi

Nitrogen retention, orange juice effect (CHANNEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

Organic acids, urine, orange juice effect (CHANNEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

Phosphorus metabolism (SHERMAN and HAWLEY)

1922, 53, 375

Children—continued:

- Phosphorus retention,
orange juice effect
(CHANEY and BLUNT)
1925, 66, 829
1926, 67, xxi

Chloral hydrate:

- Color test (ROSS)
1923-24, 58, 641

Chloride(s):

- Blood cells and serum,
distribution between,
ether effect *in vitro*
(AUSTIN and GRAM)
1924, 59, 535
—, chloride introduction
effect (UNDERHILL and
WAKEMAN)
1922, 54, 701
—, —, nephritis, effect
(UNDERHILL and WAKE-
MAN) 1922, 54, 701
—, determination (FRIEND)
1922, 51, 115
(VAN SLYKE)
1923-24, 58, 523
—, —, colorimetric
(ISAACS)
1922, 53, 17
—, —, Isaacs, modifica-
tion (DUPRAY)
1923-24, 58, 675
—, —, sources of error
(GREENWALD and
GROSS)
1922, 54, 589
—, histamine effect
(DRAKE and TISDALL)
1926, 67, 91
—, methods (SHORT and
GELLIS)
1927, 73, 219
—, pathological conditions
(GRAM)
1924, 61, 337
—, pyloric obstruction
(FELTY and MURRAY)
1923, 57, 573

Chloride(s)—continued:

- Blood plasma (DOISY and
BECKMANN)
1922, 54, 683
— — and synovial fluid
(FREMONT-SMITH and
DAILEY)
1926, 70, 779
— —, determination
(GRAM and NORGAARD)
1923, 56, 429
— serum, osmotic pressure
regulation, effect (GRAM)
1923, 56, 593
— —, pathological condi-
tions (GRAM)
1924, 61, 337
Corpuscles, pathological
conditions (GRAM)
1924, 61, 337
Determination, blood
(FRIEND)
1922, 51, 115
(VAN SLYKE)
1923-24, 58, 523
—, —, sources of error
(GREENWALD and
GROSS)
1922, 54, 589
—, — plasma (GRAM and
NORGAARD)
1923, 56, 429
—, colorimetric, blood
(ISAACS)
1922, 53, 17
—, —, Isaacs, modification,
blood (DUPRAY)
1923-24, 58, 675
—, tissues (VAN SLYKE)
1923-24, 58, 523
—, Volhard modified titra-
tion (WHITEHORN)
1927, 74, 299
Inorganic, blood, intra-
venous injection effect
(WHELAN)
1925, 63, 585

Chloride(s)—continued:

Inorganic, urine, intravenous injection effect
(WHELAN)

1925, 63, 585

Organic, tissues, gastric hydrochloric acid formation, relation (HANKÉ and DONOVAN)

1927, 74, xxiv

Tissues, determination
(VAN SLYKE)

1923-24, 58, 523

Urine, glomerular, frog
(WEARN and RICHARDS)

1925, 66, 247

—, sleep effect (SIMPSON)

1926, 67, 505

—, waking effect (SIMPSON)

1925, 63, xxxii

Chloride ion:

Blood, oxygenated, distribution (VAN SLYKE, HASTINGS, MURRAY, and SENDROY)

1925, 65, 701

—, reduced, distribution
(VAN SLYKE, HASTINGS, MURRAY, and SENDROY)

1925, 65, 701

Chlorine:

Excretion, feces, potassium influence (MILLER)

1926, 70, 593

—, potassium influence
(MILLER)

1926, 67, 71

—, urine, potassium influence (MILLER)

1923, 55, 45

1926, 70, 593

p-Chloro acids:

Fate, animal organism
(CERECEDO and SHERWIN)

1924-25, 62, 217

Chloroform:

Bile salt metabolism, bile fistula dogs, influence
(SMYTH and WHIPPLE)

1924, 59, 623

Color test (ROSS)

1923-24, 58, 641

Determination (COLE)

1926-27, 71, 173

Poisoning, carbohydrate tolerance, effect (BODANSKY)

1923-24, 58, 515

m-Chlorophenylacetic acid:

Fate (MUENZEN, CERECEDO, and SHERWIN)

1926, 68, 503

Chlorophyll:

-Free plants, antineuritic substance, water-soluble B (ORTON, McCOLLUM, and SIMMONDS)

1922, 53, 1

Chocolate:

Protein source, diet (MITCHELL, BEADLES, and KEITH)

1926-27, 71, 15

Cholesterol:

II (KNUDSON and RANGLES)

1925, 63, xxxi

I (RANGLES and KNUDSON)

1925, 66, 459

Absorption bands
(SCHLUTZ and ZIEGLER)

1926, 69, 415

Activated, *n*-butyl nitrite action (BILLS)

1925, 66, 451

Anemia (BODANSKY)

1925, 63, 239

—, distribution (BODANSKY)

1925, 63, lvi

Antirachitic derivative, formation (BILLS)

1926, 67, 753

Cholesterol—continued:

- Blood (BAUMANN and HOLLY) 1923, 55, 457
- , determination (LEIBOFF) 1924, 61, 177
- , —, Bloor modified method (SACKETT) 1925, 64, 203
- , —, colorimetric (DE TONI) 1926, 70, 207
- , ether anesthesia (MAHLER) 1926, 69, 653
- , inherited anemia, new born mice (DE ABERLE, HOSKINS, and BODANSKY) 1927, 72, 643
- , pregnancy (BAUMANN and HOLLY) 1924, 59, xxv
- , suprarenalectomy effect (BAUMANN and HOLLY) 1923, 55, 457
- plasma, determination (BLOOR, PELKAN, and ALLEN) 1922, 52, 191
- serum, determination, Bloor modified method (SACKETT) 1925, 64, 203
- —, fasting effect (SHOPE) 1927, 75, 101
- Color reactions, new (KAHLENBERG) 1922, 52, 217
- Cutaneous epithelium (ECKSTEIN and WILE) 1926, 67, lix
- 1926, 69, 181
- Determination (STEINLE and KAHLENBERG) 1926, 67, 425
- , blood (LEIBOFF) 1924, 61, 177

Cholesterol—continued:

- Determination, blood, Bloor modified method (SACKETT) 1925, 64, 203
- , — plasma (BLOOR, PELKAN, and ALLEN) 1922, 52, 191
- , — serum, Bloor modified method (SACKETT) 1925, 64, 203
- , colorimetric, blood (DE TONI) 1926, 70, 207
- Feathers (ECKSTEIN) 1927, 73, 363
- Gamma ray irradiation, influence (REINHARD and BUCHWALD) 1927, 73, 383
- Growth influence (KNUDSON and RANDLES) 1925, 63, xxxi
- Hair (ECKSTEIN) 1927, 73, 363
- Identification (STEINLE and KAHLENBERG) 1926, 67, 425
- Irradiated, absorption spectra (HESS and WEINSTOCK) 1925, 64, 193
- , active and inactive fraction (HESS, WEINSTOCK, and SHERMAN) 1926, 70, 123
- , antirachitic potency, fractions (KRAMER, SHEAR, and SHELLING) 1926-27, 71, 221
- , — value. I (HESS, WEINSTOCK, and HELMAN) 1925, 63, 305
- II (HESS and WEINSTOCK) 1925, 64, 181

Cholesterol—continued:

Irradiated, antirachitic value. III (HESS and WEINSTOCK)

1925, 64, 193

IV (HESS, WEINSTOCK, and SHERMAN)

1925, 66, 145

V (HESS, WEINSTOCK, and SHERMAN)

1926, 67, 413

VI (HESS, WEINSTOCK, and SHERMAN)

1926, 70, 123

VII (HESS and SHERMAN)

1927, 73, 145

VIII (HESS and ANDERSON)

1927, 74, 651

—, biological activity (HESS, WEINSTOCK, and SHERMAN)

1925, 66, 145

—, — —, change (HESS and WEINSTOCK)

1925, 64, 181

—, calcium balance, effect (HESS and SHERMAN)

1927, 73, 145

—, changes (HESS, WEINSTOCK, and SHERMAN)

1926, 67, 413

—, fractionation. I (SHEAR and KRAMER)

1926-27, 71, 213

II (KRAMER, SHEAR, and SHELLING)

1926-27, 71, 221

—, fractions, chemical observations (SHEAR and KRAMER)

1926-27, 71, 213

—, phosphorus balance, effect (HESS and SHERMAN)

1927, 73, 145

Metabolism, spleen relation (RANDLES and KNUDSON)

1926, 67, xvii

Cholesterol—continued:

Metabolism, suprarenals, relation (RANDLES and KNUDSON)

1926, 67, xvii

Nutrition influence (KNUDSON and RANDLES)

1925, 63, xxxi

Oxidation products, irradiation influence (SCHLUTZ ZIEGLER, and MORSE)

1927, 73, 209

Polymerization (BILLS and McDONALD)

1926, 68, 821

Properties, different sources (ANDERSON)

1926-27, 71, 407

Roentgen ray irradiation, influence (REINHARD and BUCHWALD)

1927, 73, 383

Suprarenal, hypertrophy effect (BAUMANN)

1926, 67, xxx

Synthesis, body (RANDLES and KNUDSON)

1925, 66, 459

Wool (ECKSTEIN)

1927, 73, 363

Cholesterol esters:

Anemia (BODANSKY)

1925, 63, 239

—, distribution (BODANSKY)

1925, 63, lvi

Ultra-violet rays, antirachitic action (BILLS and McDONALD)

1927, 72, 13

Cholesterol ethers:

Ultra-violet rays, antirachitic action (BILLS and McDONALD)

1927, 72, 13

Cholesteryl ethers:

Mixed, catalytic formation (BILLS and McDONALD)

1927, 72, 1

Choline:

Yeast constituent (VICK-
ERY) 1926, 68, 585

Chondrosamine hydrochlorides:

Isomeric, mutarotation
rates (LEVENE)
1923, 57, 337

Circulation:

Carbohydrate utilization,
changes, effect (CAJORI,
CROUTER, and PEMBERTON)
1925, 66, 89

Exercise, heavy, effect. I
(LUNDGAARD and MÖLLER)
1923, 55, 315

II (LUNDGAARD and
MÖLLER)
1923, 55, 477

III (LUNDGAARD and
MÖLLER)
1923, 55, 599

Oxygen exchange, blood,
and (MURRAY and MOR-
GAN) 1925, 65, 419

Citrates:

Inorganic ion ratio,
administration effect
(GROSS)
1923, 55, 729

Citric acid:

Determination, urine, pen-
tabromoacetone method
(McCLURE)
1922, 53, 357

Dissociation constants
(HASTINGS and VAN
SLYKE)
1922, 53, 269

Clam:

Mya arenaria, insulin-like
substance in tissue (COL-
LIP) 1923, 55, xxxix

Clark:

Hydrogen electrode vessel,
modification (CULLEN)
1922, 52, 521

***Clostridium acetobutylicum*:**

Acetylmethyl carbinol
production by (WILSON,
PETERSON, and FRED)
1927, 74, 495

***Clostridium thermocellum*:**

End-products, molecular
complexity, effect
(PETERSON, FRED, and
MARTEN)
1926, 70, 309

Clotting:

Blood, food ingestion
effect (MILLS)
1923, 55, xviii

Clover:

Leg weakness, chicks
(BETHKE, KENNARD, and
KIK) 1925, 63, 377

Coagulation:

Blood, hydrogen ion con-
centration changes
(HIRSCH)
1924, 61, 795

Milk, enzyme of *Solanum*
elaeagnifolium (BODAN-
SKY) 1924, 61, 365

—, heat (LEIGHTON and
MUDGE)
1923, 56, 53

Protein, reversibility (AN-
SON and MIRSKY)
1927, 74, lvii

Cocaine:

Poisoning, inorganic salt
metabolism (UNDERHILL
and GROSS)
1923-24, 58, 141

Cocoa:

Protein source, diet (MIT-
CHELL, BEADLES, and
KEITH)
1926-27, 71, 15

Coconut:

- Protein, sodium hydroxide-extracted, nitrogen distribution (FRIEDEMANN) 1922, 51, 17

Cod:

- Blood sugar, asphyxia, changes (MENTEN) 1927, 72, 249
- Liver, bile salt metabolism, relation (SMYTH and WHIPPLE) 1924, 59, 647
- Ophiodon elongatus*, pentose compounds, pancreatic tissues, distribution (BERKELEY) 1923-24, 58, 611

Cod liver oil:

- Antiophthalmic properties, non-precipitability by digitonin (NELSON and STEENBOCK) 1925, 64, 299
- Antirachitic factor destruction, ground grains (HART, STEENBOCK, and LEPKOVSKY) 1925, 65, 571
- properties, non-precipitability by digitonin (NELSON and STEENBOCK) 1925, 64, 299
- substance, resistance to reagents (BILLS) 1925, 64, 1
- Blood serum protein, rickets, feeding effect (EDERER) 1924, 60, 621
- Calcium assimilation, lactating animals, influence (HART, STEENBOCK, KLETZIEN, and SCOTT) 1926-27, 71, 271
- metabolism, influence (SJOLLEMA) 1923, 57, 255

Cod liver oil—continued:

- Concentrate, antirachitic value, subcutaneously injected (KRAMER, KRAMER, SHELLING, and SHEAR) 1926-27, 71, 699
 - Growth, chickens, effect (DUNN) 1924, 61, 129
 - Growth-promoting property (GOLDBLATT and MORITZ) 1926-27, 71, 127
 - Phosphorus metabolism, influence (SJOLLEMA) 1923, 57, 255
 - Spectroscopic observations. II (SCHLUTZ and ZIEGLER) 1926, 69, 415
 - Thyroparathyroidectomized dogs, effect (JONES) 1926, 70, 647
 - Vitamin E (SURE) 1927, 74, 45
 - stability (STEENBOCK, JONES, and HART) 1923, 55, xxvi
- Coffea arabica:**
See Coffee tree.
- Coffee tree:**
Coffea arabica, guanosine, caffeine origin, relation (CAMARGO) 1923-24, 58, 831
- —, — relation (CAMARGO) 1923-24, 58, 831
 - —, vernine, caffeine origin, relation (CAMARGO) 1923-24, 58, 831
 - —, — relation (CAMARGO) 1923-24, 58, 831

Collodion:

Lecithin-, membranes,
water diffusion (ABRAM-
SON and GRAY)

1927, 73, 459

Membranes, calibration.
I (LUNDGAARD and
HOLBØLL)

1926, 68, 439

—, high permeability
(NELSON and MORGAN)

1923-24, 58, 305

—, standardization. I
(LUNDGAARD and HOL-
BØLL)

1926, 68, 439

—, water diffusion
(ADOLPH)

1925, 64, 339

Colloid:

Cell, living, colloidal
properties of surface. I
(McCLEN-
DON)

1926, 68, 653

II (McCLEN-
DON)

1926, 69, 733

Organic, intestine, absorp-
tion (MACALLUM)

1924, 59, xvii

Salt content, electromotive
forces, influence (BEUT-
NER and MENITOFF)

1927, 72, 759

Thyroid gland, iodine dis-
tribution. IV (VAN
DYKE)

1922, 54, 11

Colon bacillus:

Phenol production (HANK
and KOESSLER)

1924, 59, 867

Colorimeter:

Bicolorimetric work
(MYERS)

1922, 54, 675

Correction curves
(WRIGHT)

1926-27, 71, 209

Colorimetric readings:

Hydrogen ion concentra-
tion, conversion chart
(McCLEN-
DON)

1922, 54, 647

Colostrum:

Camel (FALES)

1922, 53, 339

Proteins, determination
(HOWE)

1922, 52, 51

—, differential precipita-
tion (HOWE)

1922, 52, 51

Conductance:

Blood, Breit's formula,
application (McCLEN-
DON)

1924, 59, lvi

Conductivity:

Blood cell, red (McCLEN-
DON)

1926, 67, vii

—, to direct electric cur-
rents (McCLEN-
DON)

1926, 68, 653

— plasma, determination
(GRAM and NORGAARD)

1923, 56, 429

— serum, ionometric
method (GRAM and
CULLEN)

1923, 57, 477

— —, osmotic pressure
regulation, effect (GRAM)

1923, 56, 593

— —, protein influence
(ATCHLEY and NICHOLS)

1925, 65, 729

Determination, blood
plasma (GRAM and NOR-
GAARD)

1923, 56, 429

Electrical, blood (GRAM)

1924, 59, 33

Proteolysis and. I
(BAERNSTEIN)

1927, 74, lviii, 351

Conphaseolin:

Globulin, navy bean
(WATERMAN, JOHNS, and
JONES) 1923, 55, 93

Cooling power:

Body, functional levels,
relation (SUNDSTROEM)
1925, 63, xli

Copper:

Absorption, milk, infant
(HESS, SUPPLEE, and
BELLIS)
1923, 57, 725

Determination, organic
materials (HENDRIX)
1927, 74, vii

—, protein (HENDRIX)
1927, 74, vii

Excretion, milk, infant
(HESS, SUPPLEE, and
BELLIS)
1923, 57, 725

Marine animals (SEVERY)
1923, 55, 79

Milk (HESS, SUPPLEE, and
BELLIS)
1923, 57, 725

—, absorption by infant
(HESS, SUPPLEE, and
BELLIS)
1923, 57, 725

—, excretion by infant
(HESS, SUPPLEE, and
BELLIS)
1923, 57, 725

Organic materials, deter-
mination (HENDRIX)
1927, 74, vii

Protein, determination
(HENDRIX)
1927, 74, vii

Reduction, determination,
dextrin hydrolysis, *As-
pergillus oryzae* (MASLOW
and DAVISON)
1926, 68, 75

Coreidæ:

See Hemiptera.

Corn:

Pollen. II (ANDERSON)
1923, 55, 611

— hydrocarbon, White
Flint (ANDERSON)
1923, 55, 611

— lipoids, White Flint
(ANDERSON)
1923, 55, 611

— phytosterol, White
Flint (ANDERSON)
1923, 55, 611

Ration, sodium deficiency
(MILLER)
1926, 70, 759

Sodium chloride addition
to ration, growing ani-
mals (MITCHELL and
CARMAN)
1926, 68, 165

Vitamin E, yellow (SURE)
1924-25, 62, 371

Zea mays, protein, leaves
(CHIBNALL and NOLAN)
1924-25, 62, 179

See also Maize.

Corn-meal:

Protein efficiency in com-
binations (MAYNARD,
FRONDA, and CHEN)
1923, 55, 145

Corn-starch:

Hydrolysis, pancreatin
(WALTON and DITTMAR)
1926, 70, 713

Cornus florida:

See Dogwood.

Corpus luteum:

Acetone-soluble fat (CART-
LAND and HART)
1925, 66, 619

Cephalin fraction (HART
and HEYL)
1926, 70, 675

Corpus luteum—continued:

Chemical investigations.
IV (HARTLAND and
HART)

1925, 66, 619

V (HART and HEYL)

1925, 66, 639

VI (HART and HEYL)

1926, 70, 663

VII (HART and HEYL)

1926, 70, 675

Lecithin, fatty acids (HART
and HEYL)

1927, 72, 395

Lipoids, acetone extract
(HART and HEYL)

1925, 66, 639

—, ether extract (HART
and HEYL)

1926, 70, 663

Corpuscle:

See Blood cell.

Cottonseed:

Globulin, digestibility
(JONES and WATERMAN)

1923, 56, 501

Gossypol, preparation,
purification, and proper-
ties (CLARK)

1927, 75, 725

Meal, protein, sodium
hydroxide-extracted,
nitrogen distribution
(FRIEDEMANN)

1922, 51, 17

Proteins (JONES and
CSONKA)

1925, 64, 673

Toxic principle, prepara-
tion, purification, and
properties (CLARK)

1927, 75, 725

Cow-pea:

See Pea.

Cozymase:

Purification methods (RAY-
MOND and WINEGARDEN)

1927, 74, 175

Cranberry:

Urine acidity effect
(BLATHERWICK and
LONG)

1923, 57, 815

Crawfish:

Panulirus argus, blood
(MORGULIS)

1923, 55, xxxiv

—, creatinine absence
in blood (MORGULIS)

1923, 55, xxxvi

—, uric acid formation
(MORGULIS)

1925, 63, xviii

Cream:

Hydrogen ion concentra-
tion, determination,
colorimetric (SHARP and
McINERNEY)

1926, 70, 729

Creatine:

Blood (BEHRE and BENE-
DICT)

1922, 52, 11

Brain (HARDING and
EAGLES)

1924, 60, 301

Creatinine formation, brain
extracts (HAMMETT)

1924, 59, 347

—, muscle extracts
(HAMMETT)

1924, 59, 347

— preparation from (ED-
GAR and HINEGARDNER)

1923, 56, 881

Dissociation constant,
apparent (EADIE and
HUNTER)

1926, 67, 237

Enzymes, muscle tissue,
effect (HAMMETT)

1922, 53, 323

Esterification (DOX and
YOPER)

1922, 54, 671

Creatine—continued:

Excretion, children (HARD-
ING and GAEBLER)

1922, 54, 579

—, light effect (EICHEL-
BERGER)

1926, 69, 17

Fate after administration
(CHANUTIN)

1926, 67, 29

Growth effect (CHANUTIN)

1927, 74, xxi

1927, 75, 549

Histidine replacement,
growth effect (COX and
ROSE)

1926, 68, 769

Metabolism (BENEDICT
and OSTERBERG)

1923, 56, 229

IV (BEHRE and BENE-
DICT)

1922, 52, 11

V (BENEDICT and
OSTERBERG)

1923, 56, 229

—, arginine relation (ROSE
and COOK)

1925, 63, xvii

1925, 64, 325

—, histidine relation (ROSE
and COOK)

1925, 63, xvii

1925, 64, 325

Methylguanidine, muscle,
formation (HAMMETT)

1923, 55, 323

Muscle extracts. III
(HAMMETT)

1922, 53, 323

IV (HAMMETT)

1923, 55, 323

V (HAMMETT)

1924, 59, 347

— tissue, enzymes, effect
(HAMMETT)

1922, 53, 323

Creatine—continued:

Standards, comparison
(EDGAR)

1923, 56, 1

—, preparation (EDGAR)

1923, 56, 1

Tissues, distribution
(CHANUTIN)

1927, 74, xxi

1927, 75, 549

Creatinine:

Arthropod blood, absence
(MORGULIS)

1923, 55, xxxvi

Blood (BEHRE and BENE-
DICT)

1922, 52, 11

(GAEBLER and KEITCH)

1927, 74, xx

Crawfish blood, absence
(MORGULIS)

1923, 55, xxxvi

Creatine, preparation
from (EDGAR and HINE-
GARDNER)

1923, 56, 881

Decomposition, baryta
(GAEBLER)

1926, 69, 613

Determination, picric acid
purification for (BENE-
DICT)

1922, 54, 239

—, tissues, total (ROSE,
HELMER, and CHANU-
TIN)

1927, 75, 543

Dissociation constant,
apparent (EADIE and
HUNTER)

1926, 67, 237

Enzymes, muscle tissue,
effect (HAMMETT)

1922, 53, 323

Excretion, children (HARD-
ING and GAEBLER)

1922, 54, 579

—, light effect (EICHEL-
BERGER)

1926, 69, 17

Creatinine—continued:

Excretion, women (Mc-
LAUGHLIN and BLUNT)

1923-24, 58, 285

Formation, creatine, brain
extracts (HAMMETT)

1924, 59, 347

—, —, muscle extracts
(HAMMETT)

1924, 59, 347

Histidine replacement,
growth effect (COX and
ROSE)

1926, 68, 769

Jaffe reaction, chemistry
(GREENWALD)

1924, 59, xlvii

(GREENWALD and
GROSS)

1924, 59, 601

Metabolism. IV (BEHRE
and BENEDICT)

1922, 52, 11

V (BENEDICT and
OSTERBERG)

1923, 56, 229

Muscle extracts. III
(HAMMETT)

1922, 53, 323

IV (HAMMETT)

1923, 55, 323

V (HAMMETT)

1924, 59, 347

— tissue, enzymes, effect
(HAMMETT)

1922, 53, 323

Standards, comparison
(EDGAR)

1923, 56, 1

—, preparation (EDGAR)

1923, 56, 1

Tissues, total, determina-
tion (ROSE, HELMER,
and CHANUTIN)

1927, 75, 543

Creatinine picrate:

Cesium (GREENWALD and
GROSS)

1924, 59, 613

Red tautomer (GREEN-
WALD and GROSS)

1924, 59, 601

Rubidium (GREENWALD
and GROSS)

1924, 59, 613

Creatinuria:

Growth, positive nitrogen
balance, influence
(HARDING and GAEBLER)

1923, 57, 25

Cresol:

Thio-, behavior, animal
organism (HILL and
LEWIS)

1924, 59, 569

Cresol red:

Adsorption, blood serum
(HIRSCH)

1925, 63, 55

Crude fiber:

Calcium metabolism, influ-
ence (SJOELLEMA)

1923, 57, 271

Phosphorus metabolism,
influence (SJOELLEMA)

1923, 57, 271

Crystalline lens:

Cleavage products (HIJ-
KATA)

1922, 51, 155

Cucumis melo:

See Cantaloupe.

Cucurbita maxima:

See Squash.

Cullen:

Hydrogen ion concentra-
tion, blood plasma,
determination, colori-
metric (BENNETT)

1926, 69, 697

Cuorin:

Soy bean (LEVENE and
ROLF)

1926, 68, 285

Curtius:

- Hydroxy amine synthesis,
method (LEVENE and
SCHEIDEGGER)
1924, 60, 179

Cutaneous epithelium:

- Cholesterol (ECKSTEIN and
WILE) 1926, 67, lix

Cyanhemoglobin:

- Solutions, bicarbonate ion,
activity coefficient
(STADIE and HAWES)
1927, 74, xxxi

Cyanic acid:

- Color test (FEARON)
1926, 70, 785
Urease action on urea, pro-
duction (SUMNER)
1926, 68, 101
Urea-urease system, signi-
ficance (FEARON)
1926, 70, 785

Cyanides:

- Aromatic, detoxication
(ADELINE, CERECEDO,
and SHERWIN)
1926, 70, 461

Cysteic acid:

- Titration curves (ANDREWS
and SCHMIDT)
1927, 73, 651

Cysteine:

- Cystine and glutathione,
differentiation (SULLI-
VAN) 1926, 67, xi
— metabolism, rôle (LEWIS
and MCGINTY)
1922, 53, 349
-Cystine, oxidation-reduc-
tion systems, reversible
(KENDALL and NORD)
1926, 69, 295
Derivatives (SHIPLE and
SHERWIN)
1923, 55, 671
Glutaminy-, properties
(JOHNSON and VOEGT-
LIN) 1927, 75, 703

Cysteine—continued:

- Glutathione and cystine,
differentiation (SULLI-
VAN) 1926, 67, xi
Optical activity (AN-
DREWS) 1926, 67, lix
1926, 69, 209
Reaction, applications
(SULLIVAN) 1925, 63, xi
Test (SULLIVAN)
1924, 59, p. 1

Cystine:

- Administration, repeated,
effect (LEWIS)
1925, 63, xx
Casein, determination,
colorimetric (SULLIVAN)
1927, 74, xiv
Cysteine and glutathione,
differentiation (SULLI-
VAN) 1926, 67, xi
—, intermediary metabo-
lism product (LEWIS and
MCGINTY)
1922, 53, 349
Cysteine-, oxidation-reduc-
tion systems, reversible
(KENDALL and NORD)
1926, 69, 295
-Deficient diet, disulfide
acids supplement (WEST-
ERMAN and ROSE)
1927, 74, lxvii
1927, 75, 533
— —, taurine supplement
(ROSE and HUDDLE-
STON) 1926, 69, 599
Derivatives (SHIPLE and
SHERWIN) 1923, 55, 671
—, sulfur lability, insulin
constitution, relation
(BRAND and SANDBERG)
1926, 70, 381

Cystine—continued:

Determination by feeding experiments (SHERMAN and WOODS)

1925, 66, 29

—, colorimetric (HUNTER and EAGLES)

1927, 72, 177

—, —, casein (SULLIVAN)

1927, 74, xiv

—, —, proteins (FOLIN and LOONEY)

1922, 51, 421

II (LOONEY)

1926, 69, 519

—, —, urine (LOONEY)

1922, 54, 171

—, urine (LEWIS and WILSON)

1926, 69, 125

Dialanyl-, dianhydride, nutrition (LEWIS and LEWIS)

1927, 73, 535

—, nutrition (LEWIS and LEWIS)

1927, 73, 535

Diglycyl-, nutrition (LEWIS and LEWIS)

1927, 73, 535

Epidermal tissues (WILSON and LEWIS)

1927, 73, 543

Globulins, jack bean (SUMNER and GRAHAM)

1925, 64, 257

Glutathione and cysteine, differentiation (SULLIVAN)

1926, 67, xi

Hair (WILSON and LEWIS)

1927, 73, 543

-Hydrogen peroxide catalyst, reduction (ANDREWS)

1927, 74, xi

Kidney effect, excess in diet (ADDIS, MACKAY, and MACKAY)

1926-27, 71, 139

Cystine—continued:

Lentil, deficiency (JONES and MURPHY)

1924, 59, 243

Liver (HUNTER and EAGLES)

1927, 72, 167

Metabolism effect (LEWIS)

1925, 65, 187

Non-, proteinsulfur (MUELLER)

1923, 55, xv

Nutrition, growth effect (SHERMAN and MERRILL)

1925, 63, 331

— rôle (WOODS)

1925, 66, 57

Optical activity (ANDREWS)

1925, 63, xx

1925, 65, 147

Oxidation (ANDREWS)

1925, 65, 161

—, animal organism (LEWIS, UPDEGRAFF, and MCGINTY)

1924, 59, 59

Protein, nutritive value, cow-pea and field pea (FINKS, JONES, and JOHNS)

1922, 52, 403

Proteins (JONES, GERSDORFF, and MOELLER)

1924-25, 62, 183

—, determination, colorimetric (FOLIN and LOONEY)

1922, 51, 421

II (LOONEY)

1926, 69, 519

Racemic, resolution (ANDREWS)

1927, 74, xii

Sulfur-related compounds, oxidation, body (HILL and LEWIS)

1924, 59, 557

Synthesis (MULDOON, SHIPLE, and SHERWIN)

1924, 59, 675

Cystine—continued:

- Taurine replacement in diet (LEWIS and LEWIS)
1926, 69, 589
- Urine, determination (LEWIS and WILSON)
1926, 69, 125
- , —, colorimetric (LOONEY)
1922, 54, 171

***i*-Cystine:**

- Derivatives (GORTNER and HOFFMAN)
1927, 72, 433
- (ABDERHALDEN)
1927, 75, 195
- (GORTNER)
1927, 75, 199

***l*-Cystine:**

- Derivatives (GORTNER and HOFFMAN)
1927, 72, 433
- (ABDERHALDEN)
1927, 75, 195
- (GORTNER)
1927, 75, 199
- Optical activity (ANDREWS)
1927, 74, xiii

Cystinuria:

- (LOONEY, BERGLUND, and GRAVES)
1923, 57, 515

Cytosine:

- Color tests (BAUDISCH)
1924, 60, 155
- Nucleotide, isolation, tea leaves (CALVERY)
1927, 72, 549

D**Dakin:**

- Edestin, method applied to (OSBORNE, LEAVENWORTH, and NOLAN)
1924, 61, 309

Deamination:

- 3-Aminohexoses (LEVENE and SOBOTKA)
1926-27, 71, 181
- Bacteria, physiological significance (SPEAKMAN)
1926, 67, xvii
- Glucose oxidation, relation (SPEAKMAN)
1926, 70, 135

Debye-Hückel:

- Hemoglobin, bicarbonate-sodium chloride systems, theory (STADIE and HAWES)
1927, 74, xxxi

Defibrination:

- Blood, anaerobic (EISENMAN)
1926-27, 71, 607

Dehydrite:

- See Magnesium perchlorate trihydrate.

Denaturation:

- Wheat gliadin (GOTTENBERG and ALSBERG)
1927, 73, 581
- Proteins, heat (WU and WU)
1925, 64, 369

Densimeter:

- Specific gravity determination (DU NOÛY)
1927, 74, 443

Detoxication:

- Acetylation and (MUENZEN, CERECEDO, and SHERWIN)
1925, 63, xvi
- Aromatic cyanides (ADELINE, CERECEDO, and SHERWIN)
1926, 70, 461
- Benzoic acid, man (BRAKEFIELD)
1927, 74, 783

Detoxication—continued:

Histamine, mammalian organism (KOESSLER and HANKE)

1924, 59, 889

Organic substances, foreign, surface tension factor (ROSE and SHERWIN)

1924, 59, p. 1

Surface tension factor (ROSE and SHERWIN)

1926, 68, 565

Dextrin:

Adsorption (CLARK and MANN)

1922, 52, 157

Emulsifying agent, action as (CLARK and MANN)

1922, 52, 157

Hydrolysis, *Aspergillus oryzae* (MASLOW and DAVISON)

1926, 68, 75

-Liquefying activity, dextrinase, *Aspergillus oryzae*, hydrogen ion concentration effect (MASLOW and DAVISON)

1926, 68, 95

Dextrinase:

Aspergillus oryzae, dextrin-liquefying activity, hydrogen ion concentration effect (MASLOW and DAVISON)

1926, 68, 95

Dextro-alanyl-dextro-alanine anhydride:

Alkali action (LEVENE and PFALTZ)

1925, 63, 661

Dextro-1-amino-3-hydroxybutane:

Dextro-1,3-dihydroxybutane, conversion (LEVENE and HALLER)

1926, 69, 569

Dextro-1, 3-dihydroxybutane:

Dextro-1-amino-3-hydroxybutane, conversion (LEVENE and HALLER)

1926, 69, 569

Dextro-lactic acid:

Dextro-methylethyl carbinol, configurational relation (LEVENE, WALTI, and HALLER)

1926-27, 71, 465

Dextro-methylethyl carbinol:

Dextro-lactic acid, configurational relation (LEVENE, WALTI, and HALLER)

1926-27, 71, 465

Dextrose:

-Nitrogen ratio, fasted depancreatized dogs (CHAIKOFF)

1927, 74, 203

—, pancreatectomy, pancreatic perfusate influence (CLOUGH, STOKES, GIBBS, STONE, and MURLIN)

1923, 55, xxx

See also Glucose.

Diabetes:

IX (FELSHER and WOODYATT)

1924, 60, 737

Acetonuria (HUBBARD and NICHOLSON)

1922, 53, 209

Acidosis, acid excretion effect (HENDRIX, FAY, CALVIN, and BODANSKY)

1926, 69, 449

—, alkaline reserve, insulin treatment (CULLEN and JONAS)

1923, 57, 541

—, base excretion effect (HENDRIX, FAY, CALVIN, and BODANSKY)

1926, 69, 449

Diabetes—continued:

Acidosis, hydrogen ion concentration, blood, insulin treatment (CULLEN and JONAS)

1923, 57, 541

Blood, acetaldehyde (GEE and CHAIKOFF)

1926, 70, 151

—, —, identification (GEE and CHAIKOFF)

1926, 70, 151

— lipids (BLOOR, GILLETTE, and JAMES)

1927, 75, 61

— sugar curves (JONAS, MILLER, and TELLER)

1925, 63, lv

— — —, insulin treatment (JONAS, MILLER, and TELLER)

1925, 63, lv

Carbohydrate-low diet, low nitrogen metabolism (PETRÉN)

1924, 61, 355

Dihydroxyacetone metabolism (RABINOWITCH)

1927, 75, 45

Exercise effect. I (HIMWICH, LOEBEL, and BARR)

1924, 59, 265

II (LOEBEL, BARR, TOLSTOI, and HIMWICH)

1924, 61, 9

—, respiratory quotient effect (RICHARDSON and LEVINE)

1925, 66, 161

Fasting effect (RICHARDSON and MASON)

1923, 57, 587

Fat metabolism. I (BLOOR, GILLETTE, and JAMES)

1927, 75, 61

Diabetes—continued:

Glycolysis, blood (DENIS and GILES)

1923, 56, 739

(TOLSTOI)

1924, 60, 69

— rate, blood (CAJORI and CROUTER)

1924, 60, 765

Inspidus, urine, unknown substance (ILLIEVITZ)

1926-27, 71, 693

Intarvin treatment (HEFT, KAHN, and GIES)

1925, 63, lvii

Ketogenic-antiketogenic balance, significance (SHAFFER)

1922, 54, 399

Ketosis, glucose effect (FRIEDEMANN, SOMOGYI, and WEBB)

1926, 67, xlv

— in (RICHARDSON and LADD)

1923-24, 58, 931

—, insulin effect (FRIEDEMANN, SOMOGYI, and WEBB)

1926, 67, xlv

Lactic acid formation (DOISY, BRIGGS, WEBER, and KOECHIG)

1925, 63, xlviii

Mellitus, alkali therapy, ketosis (MOSENTHAL and KILLIAN)

1923, 55, xliii

—, glucose in blood (LUNDGAARD and HOLBØLL)

1925, 65, 343

—, ketosis, alkali therapy (MOSENTHAL and KILLIAN)

1923, 55, xliii

Diabetes—continued:

- Metabolism (WILDER, BOOTHBY, and BEELER) 1922, 51, 311
- Nitrogen metabolism, low, with carbohydrate-low diet (PETRÉN) 1924, 61, 355
- Pancreatic, Eck fistula effect (HENDRIX and SWEET) 1923, 55, 161
- Phlorhizin, glucose action (WIERZUCHOWSKI) 1927, 73, 445
- , glycerol metabolism (CHAMBERS and DEUEL) 1925, 65, 21
- , hypoglycemia with convulsions (WIERZUCHOWSKI) 1926, 67, xlii
- , insulin and (NASH) 1923-24, 58, 453
- II (NASH) 1925, 66, 869
- , — effect (RINGER) 1923-24, 58, 483
- (GAEBLER) 1925, 63, li
- (GAEBLER and MURLIN) 1925, 66, 731
- , — orally administered, influence (GAEBLER) 1925, 63, li
- (GAEBLER and MURLIN) 1925, 66, 731
- , ketosis (WIERZUCHOWSKI) 1927, 73, 417
- , kidney factor (NASH) 1922, 51, 171
- , lactic acid formation (LOEBEL, BARR, TOLSTOI, and HIMWICH) 1924, 61, 9
- , mechanism (NASH) 1925, 66, 869

Diabetes—continued:

- Phlorhizin, mechanism (DEUEL, WILSON, and MILHORAT) 1927, 74, 265
- I (NASH and BENEDICT) 1923, 55, 757
- II (NASH and BENEDICT) 1924, 61, 423
- , monosaccharide elimination rate (DEUEL and CHAMBERS) 1925, 63, xxii
- , respiratory metabolism after glucose ingestion (WIERZUCHOWSKI) 1926, 68, 385
- , sugar elimination (DEUEL and CHAMBERS) 1925, 65, 7
- Renal, glucose excretion, optical activity and reducing power, relation (MAGERS and GIBSON) 1927, 75, 299
- Respiratory exchange in (RICHARDSON and LADD) 1923-24, 58, 931
- quotient, exercise effect (RICHARDSON and LEVINE) 1925, 66, 161
- Sugar, urine, determination (SUMNER) 1924-25, 62, 287
- Diacetone glucose:**
(LEVENE and MEYER) 1922, 54, 805
- III (LEVENE and MEYER) 1926, 70, 343
- IV (LEVENE and MEYER) 1927, 74, 701
- Preparation (LEVENE and MEYER) 1923, 57, 317

Diacetone glucose—continued:

Structure. II (LEVENE
and MEYER)
1924, 60, 173

Diacetone mannose:

Methyl, isomeric (LEVENE
and MEYER)
1924, 59, 145

Dialanyl-cystine:

Nutrition (LEWIS and
LEWIS)
1927, 73, 535

Dialanyl-cystine dianhydride:

Nutrition (LEWIS and
LEWIS)
1927, 73, 535

Dialkylacetic acids:

Configurational relation-
ships (LEVENE and BASS)
1926, 70, 211

Dialysis:

Apparatus, continuous
(HANKE and KOESSLER)
1925, 66, 495

Dialyzer:

Rotating (WRIGHT and
RULE)
1927, 75, 185

Diamino nitrogen:

Protein-free blood filtrate
(BLAU)
1923, 56, 867

Dianhydrostrophanthidin:

(JACOBS and COLLINS)
1924, 59, 713

Diazo compounds:

Aliphatic, asymmetry. II
(LEVENE and MIKESKA)
1922, 52, 485
III (LEVENE and MIK-
ESKA) 1922, 54, 101
IV (LEVENE and MIK-
ESKA) 1923, 55, 795

Diazomethane:

Xanthosine, action (LE-
VENE)
1923, 55, 437

Dicarboxylic acid esters:

Hydrolysis, liver lipase
(HYDE and LEWIS)
1923, 56, 7
(MCGINTY and LEWIS)
1926, 67, 567

Dicarboxylic sugar acids:

Lactone formation
(LEVENE and SIMMS)
1925, 65, 31

Diet:

Acetonuria, border-line of,
relation (HUBBARD and
WRIGHT)
1923, 57, 115

Acid excess, kidney effect
(ADDIS, MACKAY, and
MACKAY)
1926-27, 71, 157

Acid-forming, calcium
metabolism, effect
(BOGERT and KIRK-
PATRICK)
1922, 54, 375

Alkali excess, kidney effect
(ADDIS, MACKAY, and
MACKAY)
1926-27, 71, 157

Anemia, nutritional, whole
milk (HART, ELVEHJEM,
WADDELL, and HERRIN)
1927, 72, 299

Base-forming, calcium
metabolism, effect
(BOGERT and KIRK-
PATRICK)
1922, 54, 375

Blood phosphorus, inor-
ganic, effect (DUTCHER,
CREIGHTON, and ROTH-
ROCK) 1925, 66, 401

Bone ash, effect (DUTCHER,
CREIGHTON, and ROTH-
ROCK) 1925, 66, 401

Bones, influence (TOV-
ERUD)

1923-24, 58, 583

Diet—continued:

Calcium assimilation, dietary factors influencing.

II (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1922, 53, 21

III (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

IV (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1923-24, 58, 43

V (HART, STEENBOCK, and ELVEHJEM)

1924-25, 62, 117

VI (STEENBOCK, HART, ELVEHJEM, and KLETZIEN)

1925, 66, 425

VII (HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY)

1926, 67, 371

VIII (HART, STEENBOCK, SCOTT, and HUMPHREY)

1926-27, 71, 263

IX (HART, STEENBOCK, KLETZIEN, and SCOTT)

1926-27, 71, 271

X (HART, STEENBOCK, SCOTT, and HUMPHREY)

1927, 73, 59

Calcium-high, phosphorus-low, metabolism effect (KARELITZ and SHOHL)

1927, 73, 655

Carbohydrate, blood uric acid, influence (HARDING, ALLIN, and EAGLES)

1927, 74, 631

Carbohydrate-deficient, preformed, growth (OSBORNE and MENDEL)

1924, 59, 13, xlv

Diet—continued:

Carbohydrate-deficient, preformed, nutrition (OSBORNE and MENDEL)

1924, 59, 13, xlv

Carbohydrate-high, growth (SMITH and CAREY)

1923-24, 58, 425

—, thyroxine effect (SANDIFORD and SANDIFORD)

1927, 74, li

Carbohydrate-low, diabetes, low nitrogen metabolism (PETRÉN)

1924, 61, 355

Cystine excess, kidney effect (ADDIS, MACKAY, and MACKAY)

1926-27, 71, 139

— replacement by taurine (LEWIS and LEWIS)

1926, 69, 589

Cystine-deficient, disulfide acids supplement (WESTERMAN and ROSE)

1927, 74, lxvii

1927, 75, 533

—, taurine supplement (ROSE and HUDDLESTON)

1926, 69, 599

Deficiency, highly purified diets (EVANS and BURR)

1927, 74, lxxii

Diabetes, synthetic (RICHARDSON and MASON)

1923, 57, 587

Egg in, hemoglobin, children, influence (ROSE)

1926, 67, xx

Excess, kidney effect. I (ADDIS, MACKAY, and MACKAY)

1926-27, 71, 139

II (ADDIS, MACKAY, and MACKAY)

1926-27, 71, 157

Diet—continued:

Fat, blood uric acid, influence (HARDING, ALLIN, and EAGLES)

1927, 74, 631

— production, body, influence (ANDERSON)

1925, 63, xlv

Fat-free, fatty acid excretion (SPERRY)

1925, 63, xlvii

Fat-high, growth (SMITH and CAREY)

1923-24, 58, 425

—, uric acid, blood, effect (HARDING, ALLIN, EAGLES, and VAN WYCK)

1925, 63, 37

Fat-rich, growth on (LEVINE and SMITH)

1927, 72, 223

Fats, unsaturated, animal, lactation influence

(CLAYTON)

1927, 74, lxxiv

—, —, —, reproduction influence (CLAYTON)

1927, 74, lxxiv

Fluorine addition, tooth effect (McCOLLUM, SIMMONDS, BECKER, and BUNTING)

1925, 63, 553

Glucose tolerance influence (GREENWALD, GROSS, and SAMET)

1924-25, 62, 401

Growth efficiency, milk effect (SHERMAN and CROCKER)

1922, 53, 49

—, histidine replacement by creatine (COX and ROSE)

1926, 68, 769

—, — — — creatinine (COX and ROSE)

1926, 68, 769

Diet—continued:

Growth, histidine replacement by purines (COX and ROSE)

1926, 68, 769

—, relation. I (OSBORNE and MENDEL)

1926, 69, 661

II (MENDEL and CANON)

1927, 75, 779

—, satisfactory for, beriberi, nursing young (SURE and SCHILLING)

1927, 74, lxxiv

Hippuric acid synthesis, influence (GRIFFITH)

1925, 64, 401

Histidine-deficient, imidazoles, synthetic, supplement (COX and ROSE)

1926, 68, 781

Inorganic portion, ophthalmia relation (McCOLLUM, SIMMONDS, and BECKER)

1922, 53, 313

— salts, high, effect (OSBORNE, MENDEL, PARK, and WINTERNITZ)

1926-27, 71, 317

Intestinal reductions, influence (BERGEIM)

1924-25, 62, 49

Iron content, milk, effect (ELVEHJEM, HERRIN, and HART)

1926-27, 71, 255

Ketogenic, children, acetone bodies, blood, effect (McQUARRIE and KEITH)

1927, 74, xvi

—, —, —, —, urine, effect (McQUARRIE and KEITH)

1927, 74, xvi

Diet—continued:

Line test and (McCOLLUM,
SIMMONDS, BECKER, and
SHIPLEY)

1926, 70, 437

Lipid-free, lipid excretion
(SPERRY)

1926, 67, xxviii

Milk and supplements,
blood, calf (HUFFMAN
and ROBINSON)

1926, 69, 101

—, blood, calf, effect
(HUFFMAN and ROBIN-
SON)

1926, 69, 101

— in, growth efficiency
(SHERMAN and CROCKER)

1922, 53, 49

—, metabolic disturbances,
cats (PUCHER and CORI)

1922, 54, 567

—, nutrition improvement
(SHERMAN and CAMP-
BELL)

1924, 60, 5

—, skimmed, powder,
sterility effect (SURE)

1926, 69, 41

—, vitamin E and repro-
duction (MATTELL and
CLAYTON)

1926, 67, xlix

1926, 68, 665

—, whole, nutritional
anemia (HART, STEEN-
BOCK, ELVEHJEM, and
WADDELL)

1925, 65, 67

(HART, ELVEHJEM, WAD-
DELL, and HERRIN)

1927, 72, 299

—, —, —, inorganic
iron effect (HART,
STEENBOCK, ELVEHJEM,
and WADDELL)

1925, 65, 67

Diet—continued:

Organic acid in urine, vari-
ations with (McLAUGH-
LIN and BLUNT)

1923-24, 58, 267

Phosphate addition, rickets
(KARELITZ and SHOHL)

1927, 73, 665

Phosphorus-low, calcium-
high, metabolism effect
(KARELITZ and SHOHL)

1927, 73, 655

Protein excess, kidney
effect (ADDIS, MacKAY,
and MacKAY)

1926-27, 71, 139

— source, chocolate (MIT-
CHELL, BEADLES, and
KEITH)

1926-27, 71, 15

—, —, cocoa (MITCHELL,
BEADLES, and KEITH)

1926-27, 71, 15

Protein-free, thyroxine
effect, deposit protein
(DEUEL, SANDIFORD,
SANDIFORD, and
BOOTHBY)

1926, 67, xxiii

Protein-high, creatine-
creatinine excretion,
children (HARDING and
GAEBLER)

1922, 54, 579

—, effect (OSBORNE, MEN-
DEL, PARK, and WINTER-
NITZ)

1926-27, 71, 317

—, kidney effect (JACKSON
and RIGGS)

1926, 67, 101

Purified foodstuffs, line
test for vitamin D
(McCOLLUM, SIMMONDS,
BECKER, and SHIPLEY)

1925, 65, 97

Diet—continued:

- Purified, magnesium metabolism (MEDES) 1926, 68, 295
- nutrients, growth on (PALMER and KENNEDY) 1927, 74, 591
- , rickets production (McCOLLUM, SIMMONDS, BECKER, and SHIPLEY) 1922, 54, 249
- Rachitic, blood phosphorus, inorganic, effect (DUTCHER, CREIGHTON, and ROTHEROCK) 1925, 66, 401
- , bone ash, effect (DUTCHER, CREIGHTON, and ROTHEROCK) 1925, 66, 401
- , calcium distribution (McCANN and BARNETT) 1922, 54, 203
- , irradiated, blood phosphorus, inorganic, effect (DUTCHER, CREIGHTON, and ROTHEROCK) 1925, 66, 401
- , —, bone ash, effect (DUTCHER, CREIGHTON, and ROTHEROCK) 1925, 66, 401
- , phosphorus distribution (McCANN and BARNETT) 1922, 54, 203
- Rearing of young, relation (ANDEREGG) 1924, 59, 587
- Reproduction relation (ANDEREGG) 1924, 59, 587
- requirements. I (SURE) 1923-24, 58, 681
- II (SURE) 1923-24, 58, 693
- III (SURE) 1924-25, 62, 371

Diet—continued:

- Reproduction requirements. IV (SURE) 1925, 63, xxvi, 211
- V (SURE) 1925, 63, lxxiv
- VI (SURE) 1926, 69, 29
- VII (SURE) 1926, 69, 41
- VIII (SURE) 1926, 69, 53
- IX (SURE) 1927, 74, 37
- X (SURE) 1927, 74, 45
- XI (SURE) 1927, 74, 55
- Reproduction-deficient, skimmed milk powder (SURE) 1927, 74, 71
- , — —, sterility effect (SURE) 1926, 69, 41
- Rickets production, purified food (McCOLLUM, SIMMONDS, BECKER, and SHIPLEY) 1922, 54, 249
- susceptibility, influence (HESS, WEINSTOCK, and TOLSTOI) 1923, 57, 731
- Scorbutic, antiscorbutic substance in liver (CARRICK and HAUGE) 1925, 63, 115
- Sugar excretion, effect (GREENWALD, GROSS, and SAMET) 1924-25, 62, 401
- Synthetic, growth adequacy (HOGAN, GUERRANT, and KEMPSTER) 1925, 64, 113

Diet—continued:

Synthetic, nutrition, pig-
 geons (SUGIURA and
 BENEDICT)

1923, 55, 33

—, vitamin E and repro-
 duction (MATTILL and
 CLAYTON)

1926, 67, xlix

1926, 68, 665

Taurine replacement of
 cystine (LEWIS and
 LEWIS)

1926, 69, 589

Tooth effect, fluorine
 addition to (McCOLLUM,
 SIMMONDS, BECKER, and
 BUNTING)

1925, 63, 553

— influence (TOVERUD)

1923–24, 58, 583

Tryptophane-deficient, in-
 dole derivatives, effect
 (JACKSON)

1927, 73, 523

Urine pigment output,
 relationship (DRABKIN)

1927, 75, 443

Vitamin A-containing,
 ophthalmia relation
 (McCOLLUM, SIMMONDS,
 and BECKER)

1925, 64, 161

— B in liver, effect (Os-
 BORNE and MENDEL)

1923–24, 58, 363

— B-low, vitamin B in
 excreta (SALMON)

1925, 65, 457

See also Food, Nutrition,
 Ration.

Diffusion:

Water, collodion mem-
 branes (ADOLPH)

1925, 64, 339

—, lecithin-collodion mem-
 branes (ABRAMSON and
 GRAY)

1927, 73, 459

Digestibility:

Cottonseed globulin
 (JONES and WATERMAN)

1923, 56, 501

Egg white, unbeaten and
 beaten (ROSE and MAC-
 LEOD)

1923–24, 58, 369

Isoelectric point, relation
 (HERTZMAN and BRAD-
 LEY)

1924, 61, 275

Method for study (BER-
 GEIM)

1926, 70, 29

Proteins, and isoelectric
 point (HERTZMAN and
 BRADLEY)

1924, 59, xix

— *in vitro*. III (JONES
 and WATERMAN)

1922, 52, 357

IV (JONES and WATER-
 MAN)

1923, 56, 501

Starch, raw (LANGWORTHY
 and DEUEL)

1922, 52, 251

Digestion:

Blood changes (MORGULIS)

1925, 66, 353

Egg white, raw (WOLF)

1922, 52, 207

II (ROSE and MACLEOD)

1923–24, 58, 369

Peptic-tryptic, proteins,
 gossypol effect (JONES
 and WATERMAN)

1923, 56, 501

Urea formation, blood,
 during (MORGULIS)

1925, 66, 353

Diglycyl-cystine:

Nutrition (LEWIS and
 LEWIS)

1927, 73, 535

Dihydrositosterol:

Plant fats, distribution
 (ANDERSON, NABEN-
 HAUER, and SHRINER)

1926–27, 71, 389

Dihydroxyacetone:

Blood sugar time curve
following ingestion
(RABINOWITCH)

1925, 65, 55

Determination (CAMP-
BELL)

1926, 67, 59

Insulin hypoglycemia,
effect (CAMPBELL and
HEPBURN)

1926, 68, 575

Metabolism (CAMPBELL,
FLETCHER, HEPBURN,
and MARKOWITZ)

1926, 67, lvii

(RABINOWITCH)

1927, 75, 45

—, diabetes (RABINO-
WITCH)

1927, 75, 45

4,5-Dihydroxyhydrothymine:

Oxidation (BAUDISCH and
DAVIDSON)

1925, 64, 233

Diketones:

Ammonium cyanide on,
action (DAKIN and
HARINGTON)

1923, 55, 487

Dimethyl acetal:

Pentamethyl-*d*-galactose
(LEVENE and MEYER)

1927, 74, 695

Pentamethylglucose (LE-
VENE and MEYER)

1926, 69, 175

Pentamethyl-*d*-mannose
(LEVENE and MEYER)

1927, 74, 695

Dinitrosalicylic acid:

Alkali, titratable, blood,
determination (SUMNER
and HUBBARD)

1923, 56, 701

Sugar determination, dia-
betic urine (SUMNER)

1924-25, 62, 287

Dipeptide:

Enzyme hydrolysis (LE-
VENE, SIMMS, and
PFALTZ)

1926, 70, 253

Diphenylacetic acid:

Fate, animal body (MIRIAM,
WOLF, and SHERWIN)

1926-27, 71, 249

Dismutation:

Crossed, aldehydes and
ketones. I (GORDON)

1927, 75, 163

Disodium phosphate:

d-Fructose, effect (SPOEHR
and WILBUR)

1926, 69, 421

d-Glucose, effect (SPOEHR
and WILBUR)

1926, 69, 421

Dissociation constant:

Apparent, creatine (EADIE
and HUNTER)

1926, 67, 237

—, creatinine (EADIE and
HUNTER)

1926, 67, 237

— first, carbonic acid
(STADIE and HAWES)

1927, 74, xxxi

— — —, ionic strength
variation effect (HAST-
INGS and SENDROY)

1925, 65, 445

—, Henderson-Hasselbalch
equation, hydrogen ion
concentration, blood
serum (CULLEN, KEELER,
and ROBINSON)

1925, 66, 301

— — —, variations
(PETERS, BULGER, and
EISENMAN)

1923, 55, 687

Dissociation constant—continued:

Apparent second, carbonic acid, ionic strength variation effect (HASTINGS and SENDROY)

1925, 65, 445

Buffer, buffer value relationship (VAN SLYKE)

1922, 52, 525

Citric acid (HASTINGS and VAN SLYKE)

1922, 53, 269

Nucleoside, plant, nucleic acid structure, relation (LEVENE and SIMMS)

1925, 65, 519

Nucleotide, plant, nucleic acid structure, relation (LEVENE and SIMMS)

1925, 65, 519

Dissociation curve:

Carbon dioxide, blood (BOCK, FIELD, and ADAIR)

1924, 59, 353

Oxygen, blood (BOCK, FIELD, and ADAIR)

1924, 59, 353

—, hemoglobin (ADAIR)

1925, 63, 529

Distribution coefficient:

Ethyl ether, air and blood (HAGGARD)

1923, 55, 131

Disulfide acids:

Cystine-deficient diets, supplement (WESTERMAN and ROSE)

1927, 74, lxvii

1927, 75, 533

Diuresis:

Base loss, alkaline reserve, blood, effect (HENDRIX and CALVIN)

1925, 65, 197

Dogwood:

Cornus florida, inositol (SANDO)

1926, 68, 403

—, scyllitol (HANN and SANDO)

1926, 68, 399

Donnan equilibrium:

(WU)

1926, 70, 203

Drink:

Iodine determination (McCLENDON)

1924, 60, 289

Drug(s):

Bile salt metabolism, influence (SMYTH and WHIPPLE)

1924, 59, 655

Blood effect. I (ATKINSON and ETS)

1922, 52, 5

Hyperglycemia, asphyxia relation (TATUM and ATKINSON)

1922, 54, 331

Du Bois:

Basal metabolic rate standard (BOOTHBY and SANDIFORD)

1922, 54, 767

Duodenum:

Hydrogen ion concentration (HUME, DENIS, SILVERMAN, and IRWIN)

1924, 60, 633

Dye:

Acid, protein combination (CHAPMAN, GREENBERG, and SCHMIDT)

1927, 72, 707

(GORTNER)

1927, 74, 409

-Protein aggregates (SHACKELL)

1924, 59, lv

I (SHACKELL)

1923, 55, xxxiii

1923, 56, 887

E

Echinoderm:

Marine, sterols from
(PAGE)

1923, 57, 471

Eck fistula:

Pancreatic diabetes, effect
(HENDRIK and SWEET)

1923, 55, 161

Edestin:

Dakin method applied to
(OSBORNE, LEAVEN-
WORTH, and NOLAN)

1924, 61, 309

Egg:

Albumin, adsorption
(CLARK and MANN)

1922, 52, 157

—, crystalline, molecular
dimensions (DU NOÛY)

1925, 64, 595

—, —, — weight (DU
NOÛY)

1925, 64, 595

—, emulsifying agent,
action as (CLARK and
MANN)

1922, 52, 157

Antirachitic vitamin, ultra-
violet light received by
hens, relation (HUGHES,
PAYNE, TITUS, and
MOORE)

1925, 66, 595

Antiscorbutic properties
(HAUGE and CARRICK)

1925, 64, 111

Blood during production,
variation (HUGHES, LAT-
SHAW, and SMITS)

1927, 74, xxx

Fertility, ultra-violet light
influence (HART, STEEN-
BOCK, LEPKOVSKY,
KLETZIEN, HALPIN, and
JOHNSON)

1925, 65, 579

Egg—continued:

Hatchability, ultra-violet
light influence (HART,
STEENBOCK, LEPKOV-
SKY, KLETZIEN, HALPIN,
and JOHNSON)

1925, 65, 579

Hemoglobin, children, in-
fluence (ROSE)

1926, 67, xx

Lecithin, unsaturated
fatty acids (LEVENE
and ROLF)

1922, 51, 507

Production, ultra-violet
light influence (HART,
STEENBOCK, LEPKOVSKY,
KLETZIEN, HALPIN, and
JOHNSON)

1925, 65, 579

Proteins, growth value
(MITCHELL and CAR-
MAN)

1924, 60, 613

—, maintenance value
(MITCHELL and CAR-
MAN)

1924, 60, 613

Sea urchin, carbon dioxide
effect on segmentation
(CLOWES and SMITH)

1923, 55, xix

-Shell formation, calcium
in (BUCKNER, MARTIN,
PIERCE, and PETER)

1922, 51, 51

White, digestibility, un-
beaten and beaten (ROSE
and MACLEOD)

1923-24, 58, 369

—, raw, digestion (WOLF)

1922, 52, 207

II (ROSE and MACLEOD)

1923-24, 58, 369

Yolk, bromolecithins (LE-
VENE and ROLF)

1926 67. 650

Egg—continued:

Yolk, fat-soluble vitamin,
ration effect (BETHKE,
KENNARD, and SASSA-
MAN) 1927, 72, 695

Elder:

Sambucus canadensis,
flowers, rut, isolation
and identification
(SANDO and LLOYD)
1923-24, 58, 737

Electrochemistry:

Blood, electrolytes (NEU-
HAUSEN and MARSHALL)
1922, 53, 365

Electrode:

Hydrogen, hydrogen ion
concentration determi-
nation (MEEKER and
OSER)

1926, 67, 307

—, — — — determination,
blood (MEEKER and
OSER)

1926, 67, 307

—, — — — determination,
urine (MEEKER and
OSER)

1926, 67, 307

— ion concentration deter-
mination, blood and
body fluids, micro vessel
with (DE EDS and HAN-
ZLIK) 1924, 60, 355

—, vessel, Clark, modifi-
cation (CULLEN)

1922, 52, 521

Palladium (ANDREWS)

1924, 59, 479

Quinhydrone, acid-base
titrations (LA MER and
PARSONS)

1923, 57, 613

—, alkaline solution effect
(LA MER and PARSONS)

1923, 57, 613

Electrode—continued:

Quinhydrone, hydrogen
ion concentration deter-
mination (MEEKER and
OSER)

1926, 67, 307

—, — — — determination,
blood (MEEKER and
OSER)

1926, 67, 307

—, — — — determination,
blood serum (CULLEN
and BILLMANN)

1925, 64, 727

—, — — — determination,
feces (ROBINSON)

1925, 66, 811

—, — — — determination,
urine (MEEKER and
OSER)

1926, 67, 307

Electrodialysis:

Agar (HOFFMAN and
GORTNER)

1925, 65, 371

Blood cell, red, hemo-
globin, crystalline, prep-
aration (STADIE and
ROSS)

1926, 68, 229

— serum (BERNHARD and
BEAVER)

1926, 69, 113

Hexone bases separation
from protein hydroly-
sates (FOSTER and
SCHMIDT)

1923, 56, 545

Electrolysis:

Hexone bases separation
from protein hydroly-
sates (SCHMIDT and
FOSTER)

1923, 55, xvi

Electrolyte:

Blood, ether acidosis, effect (AUSTIN, CULLEN, GRAM, and ROBINSON)

1924, 61, 829

—, distribution (VAN SLYKE, WU, and MCLEAN)

1923, 56, 765

(VAN SLYKE and HASTINGS)

1925, 63, xiii

—, electrochemical study (NEUHAUSEN and MARSHALL)

1922, 53, 365

—, potassium oxalate effect (EISENMAN)

1926-27, 71, 587

— plasma, potassium oxalate effect (EISENMAN)

1926-27, 71, 587

— serum. II (AUSTIN, SUNDERMAN, and CAMACK)

1927, 72, 677

—, poikilothermous animal, different temperatures (AUSTIN, SUNDERMAN, and CAMACK)

1927, 72, 677

Distribution, intestinal obstruction (ATCHLEY and BENEDICT)

1927, 75, 697

—, ureter ligation, effect (ATCHLEY and BENEDICT)

1927, 73, 1

Equilibrium, blood. I (AUSTIN, CULLEN, HASTINGS, MCLEAN, PETERS, and VAN SLYKE)

1922, 54, 121

II (PETERS, CULLEN, and AUSTIN)

1922, 54, 149

III (VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL)

1922, 54, 481

Electrolyte—continued:

Equilibrium, blood. IV (VAN SLYKE, HASTINGS, and NEILL)

1922, 54, 507

V (VAN SLYKE, WU, and MCLEAN)

1923, 56, 765

VI (HASTINGS, VAN SLYKE, NEILL, HEIDELBERGER, and HARTINGTON)

1924, 60, 89

VII (HASTINGS, SENDROY, MURRAY, and HEIDELBERGER)

1924, 61, 317

VIII (VAN SLYKE, HASTINGS, MURRAY, and SENDROY)

1925, 65, 701

Water diffusion, collodion membranes, electrostatic forces in (ADOLPH)

1925, 64, 339

Electrometric titration:

Graphical interpretation (SIMMS and LEVENE)

1926, 70, 319

Urine (MORGULIS and HAMSA)

1927, 74, 851

Electromotive force:

Colloids, salt content, influence (BEUTNER and MENITOFF)

1927, 72, 759

Embryo:

Chick, nitrogen metabolism (FISKE and BOYDEN)

1926, 70, 535

Wheat, proteins, wheat bran proteins, comparison (JONES and GERSDORFF)

1925, 64, 241

—, vitamin E in (SURE)

1924-25, 62, 371

Emulsion:

Albumin, egg, mechanism
in (CLARK and MANN)

1922, 52, 157

Dextrin, mechanism in
(CLARK and MANN)

1922, 52, 157

Gum arabic, mechanism in
(CLARK and MANN)

1922, 52, 157

Starch, mechanism in
(CLARK and MANN)

1922, 52, 157

Sugars, mechanism in
(CLARK and MANN)

1922, 52, 157

Endocrine:

Disturbance, galactose tol-
erance, influence (ROWE)

1926, 67, xlviii

Endosperm:

Wheat, proteins, wheat
bran proteins, compari-
son (JONES and GERS-
DORFF)

1925, 64, 241

Endothermic reaction:

Milk curd, heat-coagulated
(LEIGHTON and MUDGE)

1923, 56, 53

Energy:

Appetite and (COWGILL)

1926, 67, liii

Expenditure during walk-
ing (SMITH and DOO-
LITTLE)

1925, 65, 665

Metabolism, children,
small breakfast effect
(BAUER and BLUNT)

1924, 59, 77

Energy value:

Excreta (BENEDICT and
FOX)

1925, 66, 783

Foods (BENEDICT and FOX)

1925, 66, 783

Enzyme:

Acid-forming, stomach,
hydrochloric acid mech-
anism, rôle (HANKS)

1926, 67, xi

—, tissues (HANKS)

1926, 67, xi

Action. XX (FALK,
NOYES, and SUGIURA)

1922, 53, 75

XXI (FALK and
MCGUIRE)

1922, 54, 655

XXII (NOYES, SUGIURA,
and FALK)

1923, 55, 653

XXIV (SUGIURA,
NOYES, and FALK)

1923, 56, 903

XXV (FALK, NOYES,
and SUGIURA)

1924, 59, 183

XXVI (FALK, NOYES,
and SUGIURA)

1924, 59, 213

XXVII (FALK, NOYES,
and SUGIURA)

1924, 59, 225

XXIX (NOYES and
FALK)

1924-25, 62, 687

XXX (FALK, NOYES,
and SUGIURA)

1924-25, 62, 697

XXXIV (NOYES, LOR-
BERBLATT, and FALK)

1926, 68, 135

XL (NOYES and FALK)

1927, 72, 449

XLI (FALK and NOYES)

1927, 72, 467

XLII (NOYES and FALK)

1927, 72, 475

XLIII (FALK and
NOYES)

1927, 72, 489

Enzyme—continued:

- Action, mechanism (NORD)
1927, 74, lviii
- , surface-active homologs, stability, relation to mechanism (FISKE)
1923, 55, 191
- Activity, temperature coefficients (COOK)
1925, 65, 135
- Amino acid promoters, action on (ROCKWOOD)
1924, 59, xix
- Autolytic, nature (BRADLEY)
1922, 52, 467
- Blood cell, red, mammal (MORSE)
1923, 55, xxvii
- Ester-hydrolyzing, different temperatures (NOYES, LORBERBLATT, and FALK)
1926, 68, 135
- Hydrolysis, dipeptides (LEVENE, SIMMS, and PFALTZ)
1926, 70, 253
- , tripeptides (LEVENE, SIMMS, and PFALTZ)
1926, 70, 253
- Insulin, destructive action (SHONLE and WALDO)
1925, 66, 467
- Milk-coagulating, *Solanum elaeagnifolium* (BODANSKY)
1924, 61, 365
- Muscle tissue, creatine effect (HAMMETT)
1922, 53, 323
- —, creatinine effect (HAMMETT)
1922, 53, 323
- Plant, ion activation (DOBY and HIBBARD)
1927, 73, 405

Enzyme—continued:

- Protein synthesis. I (WASTENEYS and BORSOOK)
1924-25, 62, 15
- II (BORSOOK and WASTENEYS)
1924-25, 62, 633
- III (WASTENEYS and BORSOOK)
1924-25, 62, 675
- IV (BORSOOK and WASTENEYS)
1925, 63, 563
- V (WASTENEYS and BORSOOK)
1925, 63, 575
- Proteins, locust bark (JONES, GERSDORFF, and MOELLER)
1925, 64, 655
- Proteolytic, insulin action (WITZEMANN and LIVSHIS)
1923, 57, 425
- , spleen (HEDIN)
1922, 54, 177
- Tissue mixtures and tissue extract alone, comparative action (FALK, NOYES, and SUGIURA)
1924, 59, 225
- Tumor-tissue mixtures and tissue extract alone, comparative action (FALK, NOYES, and SUGIURA)
1924, 59, 225
- — — tumor extract alone, comparative action (FALK, NOYES, and SUGIURA)
1924, 59, 225
- See also Amylase, Arginase, etc.
- Ephedrine:**
 - Preparation (CHOU)
1926, 70, 109
 - Properties (CHOU)
1926, 70, 109

Ephedrine salts:

Preparation (CHOU)
1926, 70, 109

Properties (CHOU)
1926, 70, 109

Epichitosamine pentacetate:

(LEVENE)
1923, 57, 323

Epidermal tissue:

Cystine (WILSON and
LEWIS)
1927, 73, 543

Epiglucosamine:

(LEVENE and MEYER)
1923, 55, 221

Epinephrine:

Lactic acid, blood, influ-
ence (CORI)
1925, 63, liii, 253

— —, tissues, influence
(CORI)
1925, 63, liii, 253

Oxidation, potentiometric
studies (KENDALL and
WITZEMANN)
1927, 74, xlix

Reduction, potentiometric
studies (KENDALL and
WITZEMANN)
1927, 74, xlix

See also Adrenalin.

Epithelium:

Cutaneous, cholesterol
(ECKSTEIN and WILE)
1926, 69, 181

—, phospholipid (ECK-
STEIN and WILE)
1926, 69, 181

Equilibrium:

Acid-base, blood (HAW-
KINS)
1924, 61, 147

—, —, alkali effect (MYERS
and MUNTWYLER)
1927, 74, xxxiv

—, —, disease (MYERS and
BOOHER)
1924, 59, xxiii, 699

Equilibrium—continued:

Acid-base, blood, hemor-
rhage, changes (BEN-
NETT)
1926, 69, 675

—, —, pyloric obstruction
(FELTY and MURRAY)
1923, 57, 573

—, — plasma. I (PETERS,
BULGER, EISENMAN, and
LEE)
1926, 67, 141

II (EISENMAN, BULGER,
and PETERS)
1926, 67, 159

III (PETERS, BULGER,
and EISENMAN)
1926, 67, 165

IV (PETERS, BULGER,
EISENMAN, and LEE)
1926, 67, 175

V (PETERS, BULGER,
EISENMAN, and LEE)
1926, 67, 219

—, body, heat effect
(CAJORI, CROUTER, and
PEMBERTON)
1923, 57, 217

—, changes, acetone ac-
cumulation, relation
(HIMWICH, LOEBEL, and
BARR)
1924, 59, 265

—, —, lactic acid accumu-
lation, relation (HIM-
WICH, LOEBEL, and
BARR)
1924, 59, 265

—, exercise effect (BARR,
HIMWICH, and GREEN)
1923, 55, 495

(BARR and HIMWICH)
1923, 55, 539

—, sodium *r*-lactate utiliza-
tion, effect (ABRAMSON
and EGGLETON)
1927, 75, 753

—, two-phase system
(MURRAY)
1923, 56, 569

Equilibrium—continued:

Acid-base-protein, temperature effect (STADIE, AUSTIN, and ROBINSON)
1925, 66, 901

Bicarbonate ions (KUGELMASS and SHOHL)
1923-24, 58, 649

Bone calcification relation (HOLT)
1925, 64, 579

Calcium ions (KUGELMASS and SHOHL)
1923-24, 58, 649

— phosphates (HOLT, LA MER, and CHOWN)
1925, 64, 567

Carbon dioxide, alveolar air (BOCK and FIELD)
1924-25, 62, 269

II (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK)
1927, 74, 303

III (DILL, LAWRENCE, HURXTHAL, and BOCK)
1927, 74, 313

— — — —, exercising subjects (DILL, LAWRENCE, HURXTHAL, and BOCK)
1927, 74, 313

— — — —, resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK)
1927, 74, 303

— — and hemoglobin (ADAIR)
1925, 63, 503

— —, arterial blood (BOCK and FIELD)
1924-25, 62, 269

II (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK)
1927, 74, 303

Equilibrium—continued:

Carbon dioxide, arterial blood. III (DILL, LAWRENCE, HURXTHAL, and BOCK)
1927, 74, 313

— — — —, exercising subjects (DILL, LAWRENCE, HURXTHAL, and BOCK)
1927, 74, 313

— — — —, resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK)
1927, 74, 303

Carbonate ions (KUGELMASS and SHOHL)
1923-24, 58, 649

Carbonic acid, body (MURRAY and HASTINGS)
1925, 65, 265

— acid-carbonate, sea water (IRVING)
1925, 63, 767

Donnan. *See* Donnan equilibrium.

Electrolyte, blood. I (AUSTIN, CULLEN, HASTINGS, MCLEAN, PETERS, and VAN SLYKE)
1922, 54, 121

II (PETERS, CULLEN, and AUSTIN)
1922, 54, 149

III (VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL)
1922, 54, 481

IV (VAN SLYKE, HASTINGS, and NEILL)
1922, 54, 507

V (VAN SLYKE, WU, and MCLEAN)
1923, 56, 765

VI (HASTINGS, VAN SLYKE, NEILL, HEIDELBERGER, and HARTINGTON)
1924, 60, 89

Equilibrium—continued:

Electrolyte, blood. VII
(HASTINGS, SENDROY,
MURRAY, and HEIDEL-
BERGER)

1924, 61, 317

VIII (VAN SLYKE, HAST-
INGS, MURRAY, and
SENDROY)

1925, 65, 701

Gas, blood. I (AUSTIN,
CULLEN, HASTINGS,
MCLEAN, PETERS, and
VAN SLYKE)

1922, 54, 121

II (PETERS, CULLEN, and
AUSTIN)

1922, 54, 149

III (VAN SLYKE, HAST-
INGS, HEIDELBERGER,
and NEILL)

1922, 54, 481

IV (VAN SLYKE, HAST-
INGS, and NEILL)

1922, 54, 507

V (VAN SLYKE, WU, and
MCLEAN)

1923, 56, 765

VI (HASTINGS, VAN
SLYKE, NEILL, HEIDEL-
BERGER, and HARING-
TON)

1924, 60, 89

VII (HASTINGS, SEND-
ROY, MURRAY, and
HEIDELBERGER)

1924, 61, 317

VIII (VAN SLYKE, HAST-
INGS, MURRAY, and
SENDROY)

1925, 65, 701

Hemoglobin and carbon
dioxide (ADAIR)

1925, 63, 503

— — oxygen (FERRY)

1925, 59, 295

Hydrogen ions (KUGEL-
MASS and SHOHL)

1923-24, 58, 649

Equilibrium—continued:

Phosphate ions (KUGEL-
MASS and SHOHL)
1923-24, 58, 649

Erepsin:

Hydrolysis, peptides
(LEVENE and SIMMS)
1924-25, 62, 711

Ergothioneine:

Thiasine identified with
(NEWTON, BENEDICT,
and DAKIN)

1927, 72, 367

See also Sympectothion,
Thiasine.

Erythrocyte:

See Blood cell, red.

Ester:

-Hydrolyzing actions, rab-
bit tissue extracts, time
changes in (FALK and
NOYES)

1927, 72, 489

— —, tissue extracts, ki-
netics (SUGIURA, NOYES,
and FALK)

1923, 56, 903

— —, tumor extracts,
kinetics (SUGIURA,
NOYES, and FALK)

1923, 56, 903

— —, uterine fibroid ex-
tracts, time changes in
(NOYES and FALK)

1927, 72, 475

— —, — muscle extracts,
time changes in (NOYES
and FALK)

1927, 72, 475

— —, whole mouse ex-
tracts, time changes in
(FALK and NOYES)

1927, 72, 467

— —, — rat extracts, time
changes in (NOYES and
FALK)

1927, 72, 449

Ester—continued:

-Hydrolyzing enzymes, different temperatures
(NOYES, LORBERBLATT, and FALK)

1926, 68, 135

Ether:

Absorption, concentration relation (HAGGARD)

1924, 59, 737

Acidosis, blood electrolyte changes (AUSTIN, CULLEN, GRAM, and ROBINSON)

1924, 61, 829

Analysis in narcosis (KRUSE)

1923, 56, 127

Anesthesia. I (SHAFFER and RONZONI)

1923, 57, 741

II (RONZONI)

1923, 57, 761

III (RONZONI, KOECHIG, and EATON)

1924, 61, 465

—, acid-base balance, blood, effect (VAN SLYKE, AUSTIN, and CULLEN)

1922, 53, 277

—, acidosis (LEAKE, LEAKE, and KOEHLER)

1923, 56, 319

—, —, lactic acid rôle (RONZONI, KOECHIG, and EATON)

1924, 61, 465

—, alkali metabolism, effect (STEHLE, BOURNE, and BARBOUR)

1922, 53, 341

—, blood cholesterol (MAHLER)

1926, 69, 653

—, breathing volume effect (HAGGARD)

1924, 59, 795

Ether—continued:

Anesthesia concentration, dogs (RONZONI)

1923, 57, 761

—, morphine, alkali metabolism, effect (STEHLE, BOURNE, and BARBOUR)

1922, 53, 341

Anesthetic tension (HAGGARD)

1924, 59, 783

Arterial blood and central nervous system, concentration relation (HAGGARD)

1924, 59, 771

Blood effect (ATKINSON and ETS)

1922, 52, 5

Buffer action, body, and central nervous system, relation (HAGGARD)

1924, 59, 771

Carbon dioxide distribution between blood cells and serum, effect (AUSTIN and GRAM)

1924, 59, 535

Central nervous system and arterial blood, concentration relation (HAGGARD)

1924, 59, 771

— — — — buffer action, body, relation (HAGGARD)

1924, 59, 771

Chloride distribution between blood cells and serum, effect (AUSTIN and GRAM)

1924, 59, 535

Narcosis, respiratory exchange determination during (KRUSE)

1923, 56, 139

Ether—continued:

Physiological response,
various concentrations
(HAGGARD)
1924, 59, 783

See also Ethyl ether.

Ethoxyl:

—Containing compounds,
determination, Zeisel
modified procedure
(EATON and WEST)
1927, 75, 283

Ethyl ether:

Absorption. I (HAGGARD)
1924, 59, 737

II (HAGGARD)
1924, 59, 753

III (HAGGARD)
1924, 59, 771

IV (HAGGARD)
1924, 59, 783

V (HAGGARD)
1924, 59, 795

— mechanism (HAGGARD)
1924, 59, 753

Air, determination (HAG-
GARD) 1923, 55, 131
(SHAFFER and RONZONI)
1923, 57, 741

Blood, determination
(HAGGARD)
1923, 55, 131
(SHAFFER and RONZONI)
1923, 57, 741

Coefficient of distribution,
air and blood (HAG-
GARD) 1923, 55, 131

Determination, air (HAG-
GARD) 1923, 55, 131
(SHAFFER and RONZONI)
1923, 57, 741

—, blood (HAGGARD)
1923, 55, 131
(SHAFFER and RONZONI)
1923, 57, 741

Ethyl ether—continued:

Distribution. I (HAGGARD)
1924, 59, 737

II (HAGGARD)
1924, 59, 753

III (HAGGARD)
1924, 59, 771

IV (HAGGARD)
1924, 59, 783

V (HAGGARD)
1924, 59, 795

— ratio between blood and
air (SHAFFER and RON-
ZONI) 1923, 57, 741

Elimination. I (HAGGARD)
1924, 59, 737

II (HAGGARD)
1924, 59, 753

III (HAGGARD)
1924, 59, 771

IV (HAGGARD)
1924, 59, 783

V (HAGGARD)
1924, 59, 795

— mechanism (HAGGARD)
1924, 59, 753

See also Ether.

Ethyl iodide:

Blood flow determination
by (STARR and GAMBLE)
1926-27, 71, 509

Determination, air (STARR
and GAMBLE)
1926-27, 71, 509

—, blood (STARR and GAM-
BLE)
1926-27, 71, 509

—, water (STARR and
GAMBLE)
1926-27, 71, 509

Excreta:

Energy value (BENEDICT
and FOX)
1925, 66, 783

Iodine determination
(McCLENDON)
1924, 60, 289

Excreta—continued:

- Vitamin B in, vitamin B-low diet (SALMON)
1925, 65, 457

Excretion:

- Acetone bodies, diurnal variation (HUBBARD and WRIGHT)
1924, 61, 377
- Acid (HUBBARD and MUNFORD)
1922, 54, 465
- , kidney, sodium hipurate injection effect (HENDRIX and SANDERS)
1923-24, 58, 503
- , —, — phosphate injection effect (HENDRIX and SANDERS)
1923-24, 58, 503
- Acids, acidosis, diabetes, relation (HENDRIX, FAY, CALVIN, and BODANSKY)
1926, 69, 449
- , —, uranium nephritis, relation (HENDRIX and BODANSKY)
1924, 60, 657
- , hyperglycemia, uranium nephritis, relation (HENDRIX and BODANSKY)
1924, 60, 657
- Allantoin, amino acid influence (CHRISTMAN and LEWIS)
1923, 57, 379
- Ammonia (HUBBARD and MUNFORD)
1922, 54, 465
- (HUBBARD)
1923-24, 58, 711
- , acid administration effect (FISKE and SOKHEY)
1925, 63, 309
- , kidney, sodium hipurate injection effect (HENDRIX and SANDERS)
1923-24, 58, 503

Excretion—continued:

- Ammonia, kidney, sodium phosphate injection effect (HENDRIX and SANDERS)
1923-24, 58, 503
- , vomiting rôle (BLISS)
1926, 67, 109
- (BENEDICT and NASH)
1926, 69, 381
- Base, fixed, acid administration effect (FISKE and SOKHEY)
1925, 63, 309
- Bases, acidosis, diabetes, relation (HENDRIX, FAY, CALVIN, and BODANSKY)
1926, 69, 449
- , —, uranium nephritis, relation (HENDRIX and BODANSKY)
1924, 60, 657
- , hyperglycemia, uranium nephritis, relation (HENDRIX and BODANSKY)
1924, 60, 657
- Bile components, obstructive jaundice (BRAKEFIELD and SCHMIDT)
1926, 67, 523
- Blood non-protein nitrogenous constituents in relation to (PLASS)
1923, 56, 17
- plasma non-protein nitrogenous constituents in relation to (PLASS)
1923, 56, 17
- Bromine, bromoform anesthesia, effect (LUCAS, BROWN, and HENDERSON)
1927, 74, lxxix
- Calcium, calcium chloride and sodium phosphate injection effect (GREENWALD and GROSS)

Excretion—continued:

- Calcium, calcium chloride injection effect (GREENWALD and GROSS)
1925, 66, 201
- , feces, potassium influence (MILLER)
1926, 70, 593
- , parathyroid extract effect (GREENWALD and GROSS)
1925, 66, 217
1926, 68, 325
- , potassium influence (MILLER)
1926, 67, 71
- , sodium phosphate injection effect (GREENWALD and GROSS)
1925, 66, 201
- , thyroparathyroidectomy effect (GREENWALD and GROSS)
1925, 66, 185
- , urine, potassium influence (MILLER)
1926, 70, 593
- Carbohydrates (FOLIN and BERGLUND)
1922, 51, 213
- Chlorine, feces, potassium influence (MILLER)
1926, 70, 593
- , potassium influence (MILLER)
1926, 67, 71
- , urine, potassium influence (MILLER)
1923, 55, 45
1926, 70, 593
- Copper from milk by infant (HESS, SUPPLEE, and BELLIS)
1923, 57, 725
- Creatine, light effect (EICHELBERGER)
1926, 69, 17

Excretion—continued:

- Creatine-creatinine, children (HARDING and GAEBLER)
1922, 54, 579
- Creatinine, light effect (EICHELBERGER)
1926, 69, 17
- , women (McLAUGHLIN and BLUNT)
1923–24, 58, 285
- Ethyl ether. I (HAGGARD)
1924, 59, 737
- II (HAGGARD)
1924, 59, 753
- III (HAGGARD)
1924, 59, 771
- IV (HAGGARD)
1924, 59, 783
- V (HAGGARD)
1924, 59, 795
- —, mechanism (HAGGARD)
1924, 59, 753
- Fat (HILL and BLOOR)
1922, 53, 171
- II (SPERRY and BLOOR)
1924, 60, 261
- Fatty acids, fat-free diet (SPERRY)
1925, 63, xlvii
- Hippuric acid (GRIFFITH)
1925, 63, xix
- — after benzoate administration, amino acid influence (GRIFFITH and LEWIS)
1923, 57, 1
- — — administration, protein influence (GRIFFITH and LEWIS)
1923, 57, 697
- —, rate (LEWIS and GRIFFITH)
1923, 55, xxii
- Imidazoles, urine (KOESSLER and HANKE)
1924, 59, 803

Excretion—continued:

Imidazoles, urine, nephritis
(KOESSLER and HANKE)

1924, 59, 803

Inorganic salts, kidney
(DENIS)

1923, 55, 171

Ketone body, fasted depan-
creatized dogs (CHAI-
KOFF)

1927, 74, 203

Lactic acid, urine, exercise
effect (LILJESTRAND and
WILSON)

1925, 65, 773

Lipid. III (SPERRY)

1926, 68, 357

IV (SPERRY)

1926-27, 71, 351

—, lipid-free diet (SPERRY)

1926, 67, xxviii

Magnesium, calcium chlo-
ride and sodium phos-
phate injection effect
(GREENWALD and
GROSS)

1925, 66, 201

—, — — injection effect
(GREENWALD and
GROSS)

1925, 66, 201

—, parathyroid extract
effect (GREENWALD and
GROSS)

1925, 66, 217

—, sodium phosphate in-
jection effect (GREEN-
WALD and GROSS)

1925, 66, 201

—, thyroparathyroidec-
tomy effect (GREEN-
WALD and GROSS)

1925, 66, 185

Monosaccharides, phlorhi-
zin diabetes (DEUEL and
CHAMBERS)

1925, 63, xxii

Nitrogen (HUBBARD)

1923-24, 58, 711

Excretion—continued:

Nitrogen, parathyroid ex-
tract effect (GREENWALD
and GROSS)

1925, 66, 217

Organic acid, urine
(McLAUGHLIN and
BLUNT)

1923-24, 58, 267

Phosphorus, calcium chlo-
ride and sodium phos-
phate injection effect
(GREENWALD and
GROSS)

1925, 66, 201

—, — — injection effect
(GREENWALD and
GROSS)

1925, 66, 201

—, feces, potassium influ-
ence (MILLER)

1926, 70, 593

—, parathyroid extract
effect (GREENWALD and
GROSS)

1925, 66, 217

1926, 68, 325

—, potassium influence
(MILLER)

1926, 67, 71

—, sodium phosphate in-
jection effect (GREEN-
WALD and GROSS)

1925, 66, 201

—, thyroparathyroidec-
tomy effect (GREENWALD
and GROSS)

1925, 66, 185

—, urine, potassium influ-
ence (MILLER)

1926, 70, 593

Sodium, feces, potassium
influence (MILLER)

1926, 70, 593

—, r-lactate, intravenous,
intestine (ABRAMSON and
EGGLETON)

1927, 75, 745

Excretion—continued:

Sodium *r*-lactate, intravenous, kidney (ABRAMSON and EGGLETON)

1927, 75, 745

—, potassium influence (MILLER)

1926, 67, 71

—, urine, potassium influence (MILLER)

1923, 55, 45

1926, 70, 593

Sugar, acidosis, uranum nephritis, relation (HENDRIX and BODANSKY)

1924, 60, 657

— curves, glucose injection effect (FELSHER and WOODYATT)

1924, 60, 737

—, diet effect (GREENWALD, GROSS, and SAMET)

1924–25, 62, 401

—, glucose injection effect (BENEDICT and OSTERBERG)

1923, 55, 769

—, hyperglycemia, uranum nephritis, relation (HENDRIX and BODANSKY)

1924, 60, 657

—, kidney integrity, relation (UNDERHILL and WILENS)

1923–24, 58, 153

—, normal urine (BLATHERWICK, BELL, HILL, and LONG)

1925, 66, 801

—, phlorhizin diabetes (DEUEL and CHAMBERS)

1925, 65, 7

—, urine (NEUWIRTH)

1922, 51, 11

Sulfur, after sulfur-containing amino acid ingestion (MUELLER)

1923–24, 58, 373

Excretion—continued:

Urea, blood urea concentration relation (ADDIS and DRURY)

1923, 55, 105

(DRURY)

1923, 55, 113

—, factors (ADDIS and DRURY)

1923, 55, 629

—, rate. V (ADDIS and DRURY)

1923, 55, 105

VI (DRURY)

1923, 55, 113

VII (ADDIS and DRURY)

1923, 55, 629

VIII (ADDIS and DRURY)

1923, 55, 639

—, —, urine volume changes, effect (ADDIS and DRURY)

1923, 55, 639

Uric acid (KOEHLER)

1924, 60, 721

— —, endogenous, carbohydrate influence (LEWIS and CORLEY)

1923, 55, 373

— —, —, fat influence (LEWIS and CORLEY)

1923, 55, 373

— —, organic acids effect (GIBSON and DOISY)

1923, 55, xvii, 605

Urine, diurnal variations, factors (SIMPSON)

1924, 59, 107

Water, lungs, sweat glands absence (RICHARDSON)

1926, 67, 397

—, skin, sweat glands absence (RICHARDSON)

1926, 67, 397

Zinc, feces (DRINKER, FEHNEL, and MARSH)

1927, 72, 375

Excretion—continued:

Zinc, urine (DRINKER, FEHNEL, and MARSH)
1927, 72, 375

Exercise:

Acid-base equilibrium
effect (BARR, HIMWICH,
and GREEN)

1923, 55, 495

(BARR and HIMWICH)

1923, 55, 539

Blood changes (RAKE-
STRAW)

1923, 56, 121

— effect (BARR and HIM-
WICH)

1923, 55, 525

(LUNDGAARD and MÖL-
LER)

1923, 55, 599

— reaction effect (BARR)

1923, 56, 171

— plasma, acid-base equi-
librium (PETERS, BUL-
GER, EISENMAN, and
LEE)

1926, 67, 175

Breathing, alkalosis, ex-
perimental (RONZONI)

1926, 67, xxv

— effect (BARR)

1923, 56, 171

Carbon dioxide, blood,
effect (LUNDGAARD and
MÖLLER)

1923, 55, 315, 477

— — — equilibrium, alveolar
air, during (DILL, LAW-
RENCE, HURXTHAL, and
BOCK)

1927, 74, 313

— — —, arterial blood,
during (DILL, LAW-
RENCE, HURXTHAL, and
BOCK)

1927, 74, 313

Circulation effect. I
(LUNDGAARD and
MÖLLER)

1923, 55, 315

Exercise—continued:

Circulation effect. II
(LUNDGAARD and MÖL-
LER)

1923, 55, 477

III (LUNDGAARD and
MÖLLER)

1923, 55, 599

Diabetes, effect. I (HIM-
WICH, LOEBEL, and
BARR)

1924, 59, 265

II (LOEBEL, BARR, TOL-
STOI, and HIMWICH)

1924, 61, 9

—, respiratory quotient
effect (RICHARDSON and
LEVINE)

1925, 66, 161

Lactic acid excretion, urine
(LILJESTRAND and WIL-
SON)

1925, 65, 773

Oxygen, blood, effect
(LUNDGAARD and MÖL-
LER)

1923, 55, 315, 477

— relationships, arterial
blood, effect (HIMWICH
and BARR)

1923, 57, 363

Physiology. I (BARR,
HIMWICH, and GREEN)

1923, 55, 495

II (BARR and HIMWICH)

1923, 55, 525

III (BARR and HIMWICH)

1923, 55, 539

IV (BARR)

1923, 56, 171

V (HIMWICH and BARR)

1923, 57, 363

Respiration effect. I
(LUNDGAARD and MÖL-
LER)

1923, 55, 315

II (LUNDGAARD and
MÖLLER)

1923, 55, 477

Exercise—continued:

Respiration effect. III
(LUNDGAARD and MÖLLER) 1923, 55, 599

Urine changes (WILSON,
LONG, THOMPSON, and
THURLOW)

1925, 65, 755

See also Walking, Work.

Extraction:

Apparatus, continuous
(HANKS and KOESSLER)

1925, 66, 495

Falling drop method:

Specific gravity determi-
nation (BARBOUR and
HAMILTON)

1926, 69, 625

Fasting:

Base, fixed, metabolism
(GAMBLE, ROSS, and
TISDALL)

1923, 57, 633

Blood, chemical changes
(MORGULIS and ED-
WARDS)

1924, 59, xxvii

—, cyclic variations,
women (OKEY)

1925, 63, xxxiii

— sugar level, menstrual
cycle relation (OKEY and
ROBB)

1925, 65, 165

— serum calcium, effect
(CAVINS)

1924, 59, 237

— — —, rickets, effect
(CAVINS)

1924, 59, 237

— — cholesterol, relation
(SHOPE)

1927, 75, 101

— — inorganic phos-
phorus, effect (CAVINS)

1924, 59, 237

Fasting—continued:

Blood serum inorganic
phosphorus, rickets,
effect (CAVINS)

1924, 59, 237

— — sugar, relation
(SHOPE)

1927, 75, 101

Carbohydrate utilization
(SEVRINGHAUS)

1925, 63, xlviii

Dextrose-nitrogen ratios,
depancreatized dogs
(CHAIKOFF)

1927, 74, 203

Diabetes, effect (RICHARD-
SON and MASON)

1923, 57, 587

Glycogen, liver, depancrea-
tized dogs (CHAIKOFF)

1927, 74, 203

—, muscles, depancrea-
tized dogs (CHAIKOFF)

1927, 74, 203

Ketone body excretion,
depancreatized dogs
(CHAIKOFF)

1927, 74, 203

Ketonuria, carbohydrate
metabolism, relation
(CORI and CORI)

1927, 72, 615

Respiratory exchange, in-
sulin effect (CHAIKOFF
and MACLEOD)

1927, 73, 725

Rickets, blood serum cal-
cium, effect (CAVINS)

1924, 59, 237

—, — — inorganic phos-
phorus, effect (CAVINS)

1924, 59, 237

Sulfur, urine, steers (CAR-
PENTER)

1923, 55, iii

Uric acid retention (LEN-
NOX)

1925, 66, 521

Urine, effect (SIMPSON)

1925, 63, xxxii

Fat(s):

- Absorption (ECKSTEIN)
 - 1924-25, 62, 737
- Acetone bodies, body and ingested fat as precursors (HUBBARD)
 - 1923, 55, 357
- Acetone-soluble, corpus luteum (CARTLAND and HART)
 - 1925, 66, 619
- Body, acetone bodies, precursor (HUBBARD)
 - 1923, 55, 357
- , diet effect (ANDERSON)
 - 1925, 63, xlv
- , hogs, food fat effect (ELLIS and ISBELL)
 - 1926, 69, 239
- , —, ration influence (ELLIS and ISBELL)
 - 1926, 69, 219
- Calcifying properties (STEENBOCK and BLACK)
 - 1925, 64, 263
- Calories, graphic representation (DU BOIS)
 - 1924, 59, 43
- Carbohydrate and, oxidation (LUSK)
 - 1924, 59, 41
- Chicken, titer value (HEPBURN)
 - 1923, 55, xlii
- Diet, blood uric acid, influence (HARDING, ALLIN, and EAGLES)
 - 1927, 74, 631
- Excretion (HILL and BLOOR)
 - 1922, 53, 171
 - II (SPERRY and BLOOR)
 - 1924, 60, 261
- Food, body fat, hogs, effect (ELLIS and ISBELL)
 - 1926, 69, 239
- Formation, fat-low ration, pig (ELLIS and HANKINS)
 - 1925, 66, 101

Fat(s)—continued:

- Formation from carbohydrate (WESSON)
 - 1927, 73, 507
- — —, new dietary factor, relation (WESSON)
 - 1927, 73, 507
- Free diet, fatty acid excretion (SPERRY)
 - 1925, 63, xlvii
- Growth-promoting properties (STEENBOCK and BLACK)
 - 1925, 64, 263
- High diets, blood uric acid, effect (HARDING, ALLIN, EAGLES, and VAN WYCK)
 - 1925, 63, 37
- —, growth (SMITH and CAREY)
 - 1923-24, 58, 425
 - (LEVINE and SMITH)
 - 1927, 72, 223
- milk rations, X substance effect, sterility prevention (MATILL, CARMAN, and CLAYTON)
 - 1924, 61, 729
- Ingested, acetone bodies, precursor (HUBBARD)
 - 1923, 55, 357
- Irradiated, growth-promoting property (GOLDBLATT and MORITZ)
 - 1926-27, 71, 127
- Low ration, fat formation, pig (ELLIS and HANKINS)
 - 1925, 66, 101
- Metabolism, diabetes. I (BLOOR, GILLETTE, and JAMES)
 - 1927, 75, 61
- Ovarian residue (TOURTELLOTTE and HART)
 - 1926-27, 71, 1
- Oxidation, carbohydrate and (LUSK)
 - 1924, 59, 41

Fat(s)—continued:

Oxidized, sulfuric acid reaction, vitamin A-containing butter fat (SjÖR-SLEV)

1924-25, 62, 487

Plant, dihydrositosterol distribution (ANDERSON, NABENHAUER, and SHRINER)

1926-27, 71, 389

Production, hog (WIERZUCHOWSKI and LING)

1925, 64, 697

Protein, from (ATKINSON, RAPPORT, and LUSK)

1922, 53, 155

-Soluble A. *See* Vitamin.

— vitamin. *See* Vitamin.

Solvents (BILLS)

1926, 67, 279

Subcutaneous, fatty acids (ECKSTEIN)

1925, 64, 797

Suprarenal, hypertrophy effect (BAUMANN)

1926, 67, xxx

Tissues, obesity, experimentally induced (FOSTER and BENNINGHOVEN)

1926, 70, 285

Unsaponifiable constituents, light exposure, calcifying properties (STEENBOCK and BLACK)

1925, 64, 263

— — —, growth-promoting properties (STEENBOCK and BLACK)

1925, 64, 263

Unsaturated, animal, lactation influence (CLAYTON)

1927, 74, lxxiv

— — —, reproduction influence (CLAYTON)

1927, 74, lxxiv

Fat(s)—continued:

Uric acid, endogenous, elimination, influence (LEWIS and CORLEY)

1923, 55, 373

Vitamin A, inactivating action (FRIDERICIA)

1924-25, 62, 471

Fatigue:

Chemical factors. II (RAKESTRAW)

1923, 56, 121

Heat production during work, various subjects (WANG, STROUSE, and SMITH)

1927, 74, xxxvii

Fatty acid(s):

Blood, inherited anemia, new born mice (DE ABERLE, HOSKINS, and BODANSKY)

1927, 72, 643

— plasma (BLOOR)

1925, 63, xlv

I (BLOOR)

1923, 56, 711

II (BLOOR)

1924, 59, 543

— — —, determination (BLOOR, PELKAN, and ALLEN)

1922, 52, 191

Determination (BLOOR and SINCLAIR)

1927, 74, iv

— — —, blood plasma (BLOOR, PELKAN, and ALLEN)

1922, 52, 191

Excretion, fat-free diet (SPERRY)

1925, 63, xlvii

Fat, body, food fat effect (ELLIS and ISBELL)

1926, 69, 239

Fatty acid(s)—continued:

Fat, subcutaneous (ECK-STEIN)

1925, 64, 797

Lecithin, corpus luteum (HART and HEYL)

1927, 72, 395

Metabolism (DAKIN)

1926, 67, 341

—, arachidonic acid and saturated fatty acids, relation (WESSON)

1925, 65, 235

Muscle, beef, voluntary, distribution (BLOOR)

1927, 72, 327

Normal, synthesis from stearic to hexacosanic acid (LEVENE and TAYLOR)

1924, 59, 905

Oxidation, biochemical (SMITH)

1926, 67, xxvii

Saturated, arachidonic acid and, fatty acid metabolism (WESSON)

1925, 65, 235

Unsaturated, anemia, distribution (BODANSKY)

1925, 63, lvi

—, blood plasma, distribution (BLOOR)

1924, 59, 543

—, — —, forms of combination (BLOOR)

1924, 59, xxiv

—, brain cephalins (LEVENE and ROLF)

1922, 54, 91

—, — lecithins (LEVENE and ROLF)

1922, 54, 99

—, egg lecithin (LEVENE and ROLF)

1922, 51, 507

—, in anemia (BODANSKY)

1925, 63, 239

Fatty acid(s)—continued:

Unsaturated, liver lecithin (LEVENE and SIMMS)

1922, 51, 285

—, muscle, heart, beef (BLOOR)

1926, 68, 33

—, tissue, distribution. I (BLOOR)

1926, 68, 33

II (BLOOR)

1927, 72, 327

Feathers:

Cholesterol content (ECK-STEIN)

1927, 73, 363

Feces:

Calcium determination (CORLEY and DENIS)

1925, 66, 601

— excretion, potassium influence (MILLER)

1926, 70, 593

Chlorine excretion, potassium influence (MILLER)

1926, 70, 593

Ether extract (HOLMES and KERR)

1923-24, 58, 377

Hydrogen ion concentration (ROBINSON)

1922, 52, 445

— — — determination, quinhydrone electrode (ROBINSON)

1925, 66, 811

Lipids, bile, relation (SPERRY)

1926-27, 71, 351

—, —, —, and sterol metabolism (SPERRY)

1926-27, 71, 351

—, quantitative relations (SPERRY)

1926, 68, 357

Feces—continued:

Lipoids, quantitative relations (SPERRY and BLOOR)

1924, 60, 261

Phosphorus excretion, potassium influence (MILLER)

1926, 70, 593

Sodium excretion, potassium influence (MILLER)

1926, 70, 593

Zinc excretion (DRINKER, FEHNEL, and MARSH)

1927, 72, 375

Femur:

Calcium, parathyroidectomy effect (HAMMETT)

1923, 57, 285

—, thyroparathyroidectomy effect (HAMMETT)

1923, 57, 285

Magnesium, parathyroidectomy effect (HAMMETT)

1923, 57, 285

—, thyroparathyroidectomy effect (HAMMETT)

1923, 57, 285

Phosphorus, parathyroidectomy effect (HAMMETT)

1923, 57, 285

—, thyroparathyroidectomy effect (HAMMETT)

1923, 57, 285

Fermentation:

Acetone from carbohydrates (ROBINSON)

1922, 53, 125

Acetone-butyl alcohol, l-leucic acid formation (SCHMIDT, PETERSON, and FRED)

1924, 61, 163

Alcohol, yeast, l-malic acid formation (DAKIN)

1924, 61, 139

Fermentation—continued:

Bacillus coli, glucose, insulin effect (McGUIRE and FALK)

1924, 60, 489

— *granulobacter pectinovorum*, pentoses (PETERSON, FRED, and SCHMIDT)

1924, 60, 627

Butyl alcohol from carbohydrates (ROBINSON)

1922, 53, 125

Carbohydrates, acetone (ROBINSON)

1922, 53, 125

Carbon dioxide determination, fermenting mixtures (RAYMOND and WINEGARDEN)

1927, 74, 189

Glucose, *Bacillus coli*, insulin effect (McGUIRE and FALK)

1924, 60, 489

α , β -Glucose, new-glucose in (LUNDSGAARD, HOLBØLL, and GOTTSCHALK)

1926, 70, 83

Hexoses, pentose-fermenting bacteria (PETERSON, FRED, and ANDERSON)

1922, 53, 111

Lactose, propionic acid (SHERMAN and SHAW)

1923, 56, 695

Mannitol-forming bacteria, products (STILES, PETERSON, and FRED)

1925, 64, 643

Microorganisms, specific, orange juice, vitamin C, effect (LEPKOVSKY, HART, HASTINGS, and FRAZIER)

1925, 66, 49

Fermentation—continued:

Microorganisms, specific,
tomato juice, vitamin
C, effect (LEPKOVSKY,
HART, HASTINGS, and
FRAZIER)

1925, 66, 49

Molds, pentoses (PETER-
SON, FRED, and SCHMIDT)

1922, 54, 19

Orange juice, vitamin C,
microorganisms, effect
(LEPKOVSKY, HART,
HASTINGS, and FRAZIER)

1925, 66, 49

Pentose-fermenting bac-
teria, hexose fermenta-
tion (PETERSON, FRED,
and ANDERSON)

1922, 53, 111

Pentoses, *Bacillus granulo-
bacter pectinovorum*
(PETERSON, FRED, and
SCHMIDT)

1924, 60, 627

—, molds (PETERSON,
FRED, and SCHMIDT)

1922, 54, 19

Propionic acid, lactose
(SHERMAN and SHAW)

1923, 56, 695

Tomato juice, vitamin C,
microorganisms, effect
(LEPKOVSKY, HART,
HASTINGS, and FRAZIER)

1925, 66, 49

Fern:

See Tree-fern.

Ferric oxide:

Catalysis, active form
(WELO and BAUDISCH)

1925, 65, 215

—, inactive form (WELO
and BAUDISCH)

1925, 65, 215

Ferrous carbonate:

Aging (BAUDISCH and
WELO)

1925, 64, 753

Ferrous hydroxide:

Aging (BAUDISCH and
WELO)

1925, 64, 753

Fertility:

Egg, ultra-violet light in-
fluence (HART, STEEN-
BOCK, LEPKOVSKY,
KLETZIEN, HALPIN, and
JOHNSON)

1925, 65, 579

Fruit oils, rôle (SURE)

1926, 69, 29

Milk, mineral deficiency
(DANIELS and HUTTON)

1925, 63, 143

Vegetable oils, rôle (SURE)

1926, 69, 29

Yeast addition to milk diet,
influence (MATTILL and
CONGDON)

1924, 59, xii

Fetus:

Blood serum calcium
(BOGERT and PLASS)

1923, 56, 297

— — magnesium (BOGERT
and PLASS)

1923, 56, 297

— —, phosphoric acid
compounds (PLASS and
TOMPKINS)

1923, 56, 309

Surface area determination
(SANDIFORD)

1924-25, 62, 323

Fibrin:

Congo (SHACKELL)

1923, 55, xxxiii

1923, 56, 887

Precipitation, calcium
chloride (HOWE)

1923, 57, 235

Fibrin—continued:

- Solutions, transport numbers (GREENBERG)
1927, 74, lii

Fibrinogen:

- Determination (HOWE)
1923, 57, 235

Fibroid:

- Uterine, extracts, ester-hydrolyzing actions, time changes in (NOYES and FALK)
1927, 72, 475

Fibroin:

- Silk, destructive distillation (JOHNSON and DASCHAVSKY)
1924-25, 62, 197

Findlay-Sharpe:

- Picrate, urine, normal, nature (WHITE)
1926-27, 71, 419

Fish:

- Air-bladder gases, California singing (GREENE)
1924, 59, 615
- Bile salt metabolism, relation (SMYTH and WHIPPLE)
1924, 59, 647
- Blood constituents, asphyxiation influence (HALL, GRAY, and LEPOVSKY)
1926, 67, 549
- , non-protein organic constituents (DENIS)
1922, 54, 693
- California singing, *Porichthys notatus*, air-bladder gases (GREENE)
1924, 59, 615
- Insulin from (McCORMICK and NOBLE)
1924, 59, xxix
- Metallic salts absorption. II (THOMAS)
1923-24, 58, 671

Fish—continued:

- Muscle, rigor mortis, changes (BENSON)
1925, 63, lxxii

Flavone:

- Like pigments, coloration cause, hemipterous families (PALMER and KNIGHT)
1924, 59, 451

Flour:

- Peanut, protein value, supplement (EDDY and ECKMAN)
1923, 55, 119
- White, patent, nitrogen, biological value (MITCHELL and CARMAN)
1926, 68, 183

Fluoride:

- Blood plasma, serum and tissue extract action (LOEB, FLEISHER, and TUTTLE)
1922, 51, 461

Fluorine:

- Tooth effect (McCOLLUM, SIMMONDS, BECKER, and BUNTING)
1925, 63, 553

Folin-Denis:

- Uric acid reagent, insulin behavior towards (DU VIGNEAUD)
1927, 74, xvii

Folin-Wu:

- Blood analysis, cholesterol determination, colorimetric (DE TONI)
1926, 70, 207
- , lecithin determination, colorimetric (DE TONI)
1926, 70, 207
- filtrates, protein-free, modified method (HADEN)
1923, 56, 469

Folin-Wu—continued:

- Blood sugar, Benedict method, comparison (CSONKA and TAGGART) 1922, 54, 1
- — determination (ROTHBERG and EVANS) 1923-24, 58, 435
- — method, modified (ROTHBERG and EVANS) 1923-24, 58, 443
- — values, correction (OSER and KARR) 1926, 67, 319
- Sugar method, blood, Benedict, comparison (LYTTLE and HEARN) 1926, 68, 751
- —, cerebrospinal fluid, Benedict, comparison (LYTTLE and HEARN) 1926, 68, 751
- Urea determination, blood filtrates (CLARK and COLLIP) 1926, 67, 621
- Uric acid determination, light effect (ROGERS) 1923, 55, 325
- — method, modification (PUCHER) 1922, 52, 329
- — —, variables (PUCHER) 1922, 52, 317

Food:

- Acid-forming elements (CLARK) 1925, 65, 597
1927, 73, 389
- Animal, nitrogen, biological value (MITCHELL and CARMAN) 1926, 68, 183
- Base-forming elements (CLARK) 1925, 65, 597
1927, 73, 389

Food—continued:

- Blood clotting time, effect (MILLS) 1923, 55, xviii
- Calcium, body, relation (SHERMAN and MACLEOD) 1925, 63, xxx
1925, 64, 429
- Digestibility (BERGEIM) 1926, 70, 29
- Energy value (BENEDICT and FOX) 1925, 66, 783
- Fat, body fat, effect (ELLIS and ISBELL) 1926, 69, 239
- Growth requirements. I (PALMER and KENNEDY) 1927, 74, 591
- II (PALMER and KENNEDY) 1927, 75, 619
- Iodine, determination (McCLENDON) 1924, 60, 289
- Lactation period, effect (SHERMAN and MUHLFELD) 1922, 53, 41
- Phosphorus, body, relation (SHERMAN and QUINN) 1926, 67, xxxiii, 667
- Respiratory metabolism, influence (RAPPORT, WEISS, and CSONKA) 1924, 60, 583
- Restricted intake, rickets, calcium metabolism (SHOHL and BENNETT) 1927, 74, 247
- —, phosphorus metabolism (SHOHL and BENNETT) 1927, 74, 247
- Simplified, growth effect. II (SHERMAN and MUHLFELD) 1922, 53, 41

Food—continued:

Simplified, growth effect.
III (SHERMAN and CROCKER)

1922, 53, 49

IV (SHERMAN and CAMPBELL)

1924, 59, xlv

1924, 60, 5

—, reproduction effect. II
(SHERMAN and MUHLFELD)

1922, 53, 41

III (SHERMAN and CROCKER)

1922, 53, 49

IV (SHERMAN and CAMPBELL)

1924, 59, xlv

1924, 60, 5

Utilization (BERGEIM)

1926, 70, 29

See also Diet, Nutrition,
Ration.

Foodstuff:

Natural, treatment, growth
relation (MILLER and YATES)

1924-25, 62, 259

—, —, reproduction relation
(MILLER and YATES)

1924-25, 62, 259

Formaldehyde:

Blood preservation (BOCK)

1924, 59, 73

Condensation, glucose
effect. I (KINGSBURY)

1927, 75, 241

—, urine sugar determination
(KINGSBURY)

1927, 75, 241

Formic acid:

Determination, urine
(BENEDICT and HARROP)

1922, 54, 443

Fracture:

Healing, phosphorus, inorganic,
blood serum, relation (EDDY and HEFT)

1923, 55, xii

Fracture—continued:

Union, calcium, blood
serum (MOORHEAD,
SCHMITZ, CUTTER, and MYERS)

1923, 55, xiii

—, phosphorus, blood
serum (MOORHEAD,
SCHMITZ, CUTTER, and MYERS)

1923, 55, xiii

Freezing point:

Blood serum, osmotic pressure
regulation, effect
(GRAM)

1923, 56, 593

Friedländer bacillus:

Specific substance, soluble.
IV (GOEBEL)

1927, 74, 619

Type A, specific carbohydrate,
hydrolytic products (GOEBEL)

1927, 74, 619

Frog:

Muscle, hydrogenases,
specificity (COLLETT)

1923-24, 58, 793

Urine, glomerular, chlorides
(WEARN and RICHARDS)

1925, 66, 247

Fructose:

Absorption, glycogen formation
and sugar oxidation effect (CORI
and CORI)

1927, 73, 555

—, — — rate, liver (CORI)

1926, 70, 577

—, — — —, liver, insulin
influence (CORI)

1926, 70, 577

—, — —, sugar oxidation,
and insulin, effect (CORI
and CORI)

1927, 73, 555

Determination (CAMPBELL
and HANNA)

1926, 69, 703

Fructose—continued:

Determination, iodine in
(CAJORI)

1922, 54, 617

Invertase retardation
(NELSON and ANDER-
SON)

1926, 69, 443

Sucrose hydrolysis, honey
invertase, influence
(NELSON and SOTTERY)

1924-25, 62, 139

Tolerance (BODANSKY)

1923, 56, 387

— following injection
(CORI and CORI)

1927, 72, 597

—, insulin effect, following
injection (CORI and
CORI)

1927, 72, 597

See also Levulose.

d-Fructose:

Disodium phosphate effect
(SPOEHR and WILBUR)

1926, 69, 421

Fruit oil:

Fertility, rôle (SURE)

1926, 69, 29

Lactation, rôle (SURE)

1926, 69, 29

Fucose:

Structure (CLARK)

1922, 54, 65

Fumaric acid:

Muscle tissue action on
(DAKIN)

1922, 52, 183

Functional level:

Body, cooling power, exter-
nal, relation (SUND-
STROEM)

1925, 63, xli

Fundulus heteroclitus:

Nickel absorption by
(THOMAS)

1923-24, 58, 671

Fungus:

Filamentous, cellulose
decomposition by, car-
bon transformation in
(HEUKELEKIAN and
WAKSMAN)

1925, 66, 323

—, — — —, nitrogen
transformation in
(HEUKELEKIAN and
WAKSMAN)

1925, 66, 323

Furfural:

Determination, colori-
metric (YOUNGBURG and
PUCHER)

1924, 61, 741

G**Galactoarabonic acid:**

Lactone formation, lactose
structure, relation
(LEVENE and WINTER-
STEINER)

1927, 75, 315

Galactose:

Absorption, glycogen for-
mation rate, liver (CORI)

1926, 70, 577

—, — — —, liver, insulin
influence (CORI)

1926, 70, 577

Fate, galactose and glucose
intravenous administra-
tion, effect (CORLEY)

1927, 74, 19

—, intravenously adminis-
tered (CORLEY)

1927, 74, 1

Metabolism. I (ROWE)

1923, 55, vi

III (ROWE)

1926, 67, xlviii

Monoacetone (LEVENE
and MEYER)

1925, 64, 473

Galactose—continued:

- Tolerance (BODANSKY)
1923, 56, 387
(BERGLUND and NI)
1925, 63, xlviii
—, endocrine disturbance
influence (ROWE)
1926, 67, xlviii
—, normal individuals
(ROWE)
1923, 55, vi

d-Galactose:

- (LEVENE and MEYER)
1927, 74, 695
Pentamethyl-, dimethyl
acetals (LEVENE and
MEYER)
1927, 74, 695

Gas:

- Air-bladder, California
singing fish (GREENE)
1924, 59, 615
Analysis apparatus (CAR-
PENTER)
1923, 55, xix
— —, methane determina-
tion in metabolism
experiments (CARPEN-
TER and FOX)
1926, 70, 115
—, Van Slyke apparatus,
trap for (SHOHL)
1923, 56, 125
Blood, arterial-venous,
similar content, method
of obtaining (GOLD-
SCHMIDT and LIGHT)
1925, 63, xxxviii
1925, 64, 53
—, determination, mano-
metric measurement. I
(VAN SLYKE and NEILL)
1924, 61, 523
II (HARINGTON and VAN
SLYKE)
1924, 61, 575
III (VAN SLYKE)
1925, 66, 409

Gas—continued:

- Blood, determination, vac-
uum extraction. I (VAN
SLYKE and NEILL)
1924, 61, 523
II (HARINGTON and
VAN SLYKE)
1924, 61, 575
III (VAN SLYKE)
1925, 66, 409
—, manometric apparatus,
carbon dioxide factors
(VAN SLYKE and SEND-
ROY) 1927, 73, 127
Equilibrium, blood. I
(AUSTIN, CULLEN, HAST-
INGS, McLEAN, PETERS,
and VAN SLYKE)
1922, 54, 121
II (PETERS, CULLEN,
and AUSTIN)
1922, 54, 149
III (VAN SLYKE, HAST-
INGS, HEIDELBERGER,
and NEILL)
1922, 54, 481
IV (VAN SLYKE, HAST-
INGS, and NEILL)
1922, 54, 507
V (VAN SLYKE, WU, and
McLEAN)
1923, 56, 765
VI (HASTINGS, VAN
SLYKE, NEILL, HEIDEL-
BERGER, and HARING-
TON) 1924, 60, 89
VII (HASTINGS, SEND-
ROY, MURRAY, and
HEIDELBERGER)
1924, 61, 317
VIII (VAN SLYKE, HAST-
INGS, MURRAY, and
SENDROY)
1925, 65, 701
Inert, protein solution,
hydration, relation
(STODDARD)
1926-27, 71, 629

Gas—continued:

- Manometric apparatus,
portable (VAN SLYKE)
1927, 73, 121
- Respiratory, blood density,
effect (HAMILTON and
BARBOUR)
1927, 74, 553

Gastrointestinal tract:

- Absorption (BERGHEIM)
1926, 70, 47

Gelatinification:

- Blood serum, formalized
(HENLEY)
1923, 57, 139

Gelatin:

- Alkali action on (LEVENE
and BASS)
1927, 74, 715
- Bile salt metabolism re-
lation (SMYTH and
WHIPPLE)
1924, 59, 647
- Birefringence (FIELD and
ALSBERG)
1925, 63, xlii
- Hydrolysates, specific dy-
namic action (RAPPORT)
1926-27, 71, 75

Glandular activity:

- Salivary constituents as
index (MORRIS and
JERSEY)
1923, 56, 31

Glass:

- Screens, light radiation-
transmitting, curative of
rickets (LUCE)
1926-27, 71, 187
- Substitute, ultra-violet
light transmission (RUS-
SELL and MASSENGALE)
1927, 74, lxxvi

Gliadin:

- Preparation (DILL and
ALSBERG)
1925, 63, lxvii

Gliadin—continued:

- Specific rotation (DILL and
ALSBERG)
1925, 63, lxviii
- Wheat, denaturation (GOT-
TENBERG and ALSBERG)
1927, 73, 581
- , hydrolysis rate (VICK-
ERY)
1922, 53, 495
- , preparation (DILL and
ALSBERG)
1925, 65, 279
- , product of mild acid
hydrolysis (VICKERY)
1923, 56, 415
- , solubility (DILL and
ALSBERG)
1925, 65, 279
- , specific rotation (DILL
and ALSBERG)
1925, 65, 279

Globin:

- Nitrogen distribution
(HUNTER and BOROOK)
1923, 57, 507

Globulin(s):

- Albumin-, fraction, tuber-
cle bacillus (COGHILL)
1926, 70, 439
- Amino acids, thyroid gland
(ECKSTEIN)
1926, 67, 601
- Bean, jack. II (SUMNER
and GRAHAM)
1925, 64, 257
- Blood plasma, *Bacillus*
abortus injection effect
(HOWE and SANDERSON)
1924-25, 62, 767
- serum, determination
(HENLEY)
1922, 52, 367
- Bran, wheat (JONES and
GERSDORFF)
1923-24, 58, 117

Globulin(s)—continued:

Cantaloupe seed, crystalline, isolation (JONES and GERSDORFF)

1923, 56, 79

Conphaseolin, navy bean (WATERMAN, JOHNS, and JONES)

1923, 55, 93

Cottonseed, digestibility (JONES and WATERMAN)

1923, 56, 501

Determination, blood serum (HENLEY)

1922, 52, 367

Rice (JONES and GERSDORFF)

1927, 74, 415

Squash seed, crystalline (JONES and GERSDORFF)

1923, 56, 79

Thyroid gland, amino acid distribution (ECKSTEIN)

1926, 67, 601

Wheat bran (JONES and GERSDORFF)

1923-24, 58, 117

Glomerulus:

Urine, chlorides, frog (WEARN and RICHARDS)

1925, 66, 247

Glucoheptonic lactone:

4-Methyl- (LEVENE and MEYER)

1924, 60, 173

Glucokinase:

II (COLLIP)

1923, 57, 65

III (COLLIP)

1923-24, 58, 163

Hormone, plant tissue (COLLIP)

1923, 56, 513

Gluconic acid(s):

2, 5-Anhydro-, optical behavior (LEVENE)

1924, 59, 135

Gluconic acid(s)—continued:

Lactone formation (LEVENE and SIMMS)

1926, 68, 737

Methylated, optical rotations (LEVENE and MEYER)

1925, 65, 535

—, salts, optical rotations (LEVENE and MEYER)

1925, 65, 535

Penicillium luteum-purpureum group, production. I (MAY, HERICK, THOM, and CHURCH)

1927, 75, 417

Glucosamine:

Epi- (LEVENE and MEYER)

1923, 55, 221

Glucosane:

Physiological behavior (DEUEL, WADDELL, and MANDEL)

1926, 68, 801

Glucose:

Absorption, glycogen formation and sugar oxidation, relation (CORI and CORI)

1926, 70, 557

—, — — rate, liver (CORI)

1926, 70, 577

—, — — —, liver, insulin influence (CORI)

1926, 70, 577

—, — —, sugar oxidation, and insulin, relation (CORI and CORI)

1926, 70, 557

Acetoacetic ester condensation compounds (WEST)

1927, 74, xlii, 561

— — — —, antiketogenesis relation (WEST)

1927, 74, xlii, 561

Glucose—continued:

- Adrenalectomized rats,
fate (CORI and CORI)
1927, 74, p. 1
- 2,5-Anhydro-, optical
behavior (LEVENE)
1924, 59, 135
- Antiketogenic action
(SIMPSON)
1923, 55, xxiv
- Bacillus coli*, fermenting
action, insulin effect
(McGUIRE and FALK)
1924, 60, 489
- Bacteria, decomposition
(YOUNG)
1924, 59, xliii
- Blood (LUNDGAARD and
HOLBØLL)
1925, 65, 323
- , diabetes mellitus
(LUNDGAARD and HOL-
BØLL) 1925, 65, 343
- , glycosuria, benign
(LUNDGAARD and HOL-
BØLL) 1925, 65, 343
- inorganic phosphorus,
effect (KATAYAMA and
KILLIAN)
1926-27, 71, 707
- lactic acid, effect (KATA-
YAMA and KILLIAN)
1926-27, 71, 707
- , nature (LUNDGAARD
and HOLBØLL)
1925, 65, 323
- sugar curves, cerebro-
spinal rhinorrhea, effect
(GIBSON and DULANEY)
1926, 67, lxi
- —, effect (KATAYAMA
and KILLIAN)
1926-27, 71, 707
- —, ingestion effect
(FOSTER)
1923, 55, 303

Glucose—continued:

- Body fluids, form (LUND-
GAARD and HOLBØLL)
1925, 65, 363
- Cerebrospinal fluid sugar
curves, cerebrospinal
rhinorrhea, effect (GIB-
SON and DULANEY)
1926, 67, lxi
- Commercial granular, alco-
holic extract, urine re-
ducing substance, effect
(WANG and FELSHER)
1924, 61, 659
- —, blood reducing
substance, effect (WANG
and FELSHER)
1924, 59, liii
- — extract plus chemi-
cally pure, tolerance
(WANG and FELSHER)
1924, 59, liv
- —, sugar tolerance
(WANG and FELSHER)
1924, 59, liv
- —, urine reducing
substance, effect (WANG
and FELSHER)
1924, 59, liii
- Determination, iodine in
(CAJORI)
1922, 54, 617
- , phosphate buffers,
presence (VISSCHER)
1926, 69, 1
- Diabetes, phlorhizin, ac-
tion (WIERZUCHOWSKI)
1927, 73, 445
- —, respiratory metab-
olism after ingestion
(WIERZUCHOWSKI)
1926, 68, 385
- Diacetone (LEVENE and
MEYER)
1922, 54, 805
- III (LEVENE and
MEYER)
1926, 70, 343

Glucose—continued:

Diacetone. IV (LEVENE and MEYER)

1927, 74, 701

—, preparation (LEVENE and MEYER)

1923, 57, 317

—, structure. II (LEVENE and MEYER)

1924, 60, 173

Equivalent, insulin, depancreatized dogs (ALLAN)

1924, 59, xxviii

—, various sugars by different methods (GREENWALD, SAMET, and GROSS)

1924-25, 62, 397

Excreted, renal diabetics, optical activity and reducing power, relation (MAGERS and GIBSON)

1927, 75, 299

Fate after injection (FOLIN, TRIMBLE, and NEWMAN)

1927, 75, 263

-Fermenting action, *Bacillus coli*, insulin influence (McGUIRE and FALK)

1924, 60, 489

Formaldehyde condensation, effect. I (KINGSBURY)

1927, 75, 241

Galactose and, intravenous administration, galactose disposal effect (CORLEY)

1927, 74, 19

Glycogen, liver, transformation, *in vitro* (LUNDGAARD and HOLBØLL)

1926, 68, 475

Insulin and, blood inorganic phosphorus, effect (KATAYAMA and KILLIAN)

1926-27, 71, 707

Glucose—continued:

Insulin and, blood lactic acid, effect (KATAYAMA and KILLIAN)

1926-27, 71, 707

— —, — sugar effect (KATAYAMA and KILLIAN)

1926-27, 71, 707

— — liver tissue, *in vitro*, action (LUNDGAARD and HOLBØLL)

1926, 68, 485

— — muscle, *in vitro*, effect (HARRIS, LASKER, and RINGER)

1926, 69, 713

— — — tissue, *in vitro*, effect (LUNDGAARD and HOLBØLL)

1924-25, 62, 453

1926, 70, 71

— — — — *in vitro*, reducing and rotation values, effect (PAUL)

1926, 68, 425

— — — —, *in vitro*, specific rotatory power (BEARD and JERSEY)

1926, 70, 167

— — — —, interaction (BARBOUR)

1926, 67, 53

— effect (BARBOUR)

1926, 67, 53

(WIERZUCHOWSKI)

1926, 68, 631

—, *in vitro*, effect (LUNDGAARD and HOLBØLL)

1924-25, 62, 453

1926, 68, 485

(HARRIS, LASKER, and RINGER)

1926, 69, 713

(LUNDGAARD and HOLBØLL)

1926, 70, 71

Glucose—continued:

Insulin inactivated by (DU VIGNEAUD)

1927, 73, 275

Intestinal mucosa, contact with, polarimetry effect (HUME and DENIS)

1924, 59, 457

Invertase retardation (NELSON and ANDERSON)

1926, 69, 443

Ketosis, diabetes, effect (FRIEDEMANN, SOMOGYI, and WEBB)

1926, 67, xlv

—, effect (FRIEDEMANN, SOMOGYI, and WEBB)

1926, 67, xlv

Level, regulation in body (VISSCHER)

1926, 69, 3

Liver tissue, *in vitro*, action (LUNDGAARD and HOLBØLL)

1926, 68, 485

— — and insulin, *in vitro*, action (LUNDGAARD and HOLBØLL)

1926, 68, 485

Methylated, oxidation (SOBOTKA)

1926, 69, 267

Monoacetone benzylidene (LEVENE and MEYER)

1923, 57, 319

—, methylated methyl-glucosides prepared from (LEVENE and MEYER)

1926, 70, 343

Muscle and insulin, *in vitro*, effect (HARRIS, LASKER, and RINGER)

1926, 69, 713

— tissue and insulin, *in vitro*, effect (LUNDGAARD and HOLBØLL)

1926, 70, 71

1924-25, 62, 453

Glucose—continued:

Muscle tissue *in vitro*, reducing and rotation values, effect (PAUL)

1926, 68, 425

— — —, specific rotatory power (BEARD and JERSEY)

1926, 70, 167

New-, determination, biological fluids (LUNDGAARD and HOLBØLL)

1926, 68, 457

—, α , β -glucose fermentation, occurrence (LUNDGAARD, HOLBØLL, and GOTTSCHALK)

1926, 70, 83

Oxidation, alkaline solutions of iodine (GOEBEL)

1927, 72, 801

—, deamination and (SPEAKMAN)

1926, 70, 135

—, iodine, insulin presence (ALLES and WINEGARDEN)

1923-24, 58, 225

Pentamethyl, dimethyl acetal (LEVENE and MEYER)

1926, 69, 175

Polarimetry effect, intestinal mucosa, contact with (HUME and DENIS)

1924, 59, 457

Reducing value, insulin and muscle tissue *in vitro* (PAUL)

1926, 68, 425

— —, muscle tissue *in vitro* (PAUL)

1926, 68, 425

Rotation value, insulin and muscle tissue *in vitro* (PAUL)

1926, 68, 425

Glucose—continued:

- Rotation value, muscle tissue *in vitro* (PAUL)
1926, 68, 425
- Specific dynamic action, urethane narcosis, influence (GUTTMACHER and WEISS)
1927, 72, 283
- Structure (LEVENE and SIMMS)
1926, 68, 737
- Substituted, phosphoric esters (LEVENE and MEYER)
1922, 53, 431
- , sulfuric esters (LEVENE and MEYER)
1922, 53, 437
- Sucrose hydrolysis, honey invertase, influence (NELSON and SOTTERY)
1924-25, 62, 139
- Sugar excretion curves following injection (FELSHER and WOODYATT)
1924, 60, 737
- —, injection effect (BENEDICT and OSTERBERG)
1923, 55, 769
- Thiry-Vella loops, effect (WHITE and RABINOWITCH)
1927, 74, 449
- Tolerance (BODANSKY)
1923, 56, 387
- (WANG and FELSHER)
1924, 59, liv
- , chemically pure plus commercial granular extract (WANG and FELSHER)
1924, 59, liv
- , diet influence (GREENWALD, GROSS, and SANGER)
1924-25, 62, 401

Glucose—continued:

- Tolerance following injection (CORI and CORI)
1927, 72, 597
- , commercial granular (WANG and FELSHER)
1924, 59, liv
- , — — extract plus chemically pure (WANG and FELSHER)
1924, 59, liv
- , insulin effect, following injection (CORI and CORI)
1927, 72, 597
- Transformation, *in vitro*, liver glycogen (LUNDSGAARD and HOLBØLL)
1926, 68, 475
- Urine, nature (AUSTIN and BOYD)
1925, 63, xxii
- See also Dextrose.
- α, β -Glucose:
Fermentation, new-glucose occurrence in (LUNDSGAARD, HOLBØLL, and GOTTSCHALK)
1926, 70, 83
- β -Glucose:
Mutarotation (LUNDSGAARD and HOLBØLL)
1925, 65, 305
- d*-Glucose:
Blood, disappearance rate (DU VIGNEAUD and KARR)
1925, 66, 281
- Disodium phosphate effect (SPOEHR and WILBUR)
1926, 69, 421
- Glucose pentacetate:
Optical rotation, concentration influence (LEVENE and BENCOWITZ)
1927, 73, 679
- —, solvent influence (LEVENE and BENCOWITZ)
1927, 73, 679

α -Glucose pentacetate:

Rotatory dispersion (LE-
VENE and BENCOWITZ)
1927, 74, 153

 β -Glucose pentacetate:

Rotatory dispersion (LE-
VENE and BENCOWITZ)
1927, 74, 153

Glucoside:

Cardiac, structure and
biological action, rela-
tionship (JACOBS and
HOFFMANN)
1927, 74, 787

Methyl-, methylated,
monoacetone glucose,
preparation (LEVENE
and MEYER)
1926, 70, 343

α -Methyl-, sucrose hydrol-
ysis, invertase. I (NEL-
SON and FREEMAN)
1925, 63, 365

II (NELSON and POST)
1926, 68, 265

2, 3, 5, 6-Tetramethyl-
methyl-, α - and β -isomers
(LEVENE and MEYER)
1927, 74, 701

3, 5, 6-Trimethylmethyl-,
 α - and β -isomers (LE-
VENE and MEYER)
1927, 74, 701

Glutaconic acid:

Muscle tissue action on
(DAKIN)
1922, 52, 183

Glutamic acid:

Determination, proteins
(JONES and MOELLER)
1927, 74, liv

Glutamyl-cysteine:

Preparation (JOHNSON and
VOEGTLIN)
1927, 75, 703

Properties (JOHNSON and
VOEGTLIN)
1927, 75, 703

Glutathione:

(HUNTER and EAGLES)
1927, 72, 147

II (HOPKINS and DIXON)
1922, 54, 527

Cysteine and cystine, dif-
ferentiation (SULLIVAN)
1926, 67, xi

Determination, colorim-
etric (HUNTER and
EAGLES)
1927, 72, 177

Isolation (HOPKINS)
1927, 72, 185

Normal animals (THOMP-
SON and VOEGTLIN)
1926, 70, 793

Oxidized, oxidation-reduc-
tion, reversible (KEN-
DALL and NORD)
1926, 69, 295

Preparation (JOHNSON and
VOEGTLIN)
1927, 75, 703

Properties (JOHNSON and
VOEGTLIN)
1927, 75, 703

Reduced, oxidation-reduc-
tion systems, reversible
(KENDALL and NORD)
1926, 69, 295

Sulfur, non-protein, com-
pound, blood (HUNTER
and EAGLES)
1927, 72, 133

Tumor animals (VOEGTLIN
and THOMPSON)
1926, 70, 801

Glutelin(s):

(JONES and CSONKA)
1926, 67, ix

(CSONKA and JONES)
1927, 74, liv

I (CSONKA and JONES)
1927, 73, 321

II (JONES and CSONKA)
1927, 74, 427

Glutelin(s)—continued:

III (CSONKA)
1927, 75, 189

Oat (CSONKA)
1927, 75, 189

Rice (JONES and CSONKA)
1927, 74, 427

 α -Glutelin:

Wheat (CSONKA and JONES)
1927, 73, 321

 β -Glutelin:

Wheat (CSONKA and JONES)
1927, 73, 321

Glucose:

Biochemical behavior
(BENEDICT, DAKIN, and WEST)
1926, 68, 1

L-Glyceric acid:

Rotation (GREENWALD)
1925, 63, 339

Glycerol:

Biuret reaction, interference
(SEIBERT and LONG)
1925, 64, 229

Hyperglycemia production
(VOEGTLIN, THOMPSON, and DUNN)
1925, 64, 639

Metabolism, phlorhizin diabetes
(CHAMBERS and DEUEL)
1925, 65, 21

Glycidol:

Condensation products
(LEVENE and WALT)
1927, 75, 325

Glycine:

Glycylglycyllevoalanyl-, alkali action
(LEVENE and PFALTZ)
1926, 68, 277

Glycyllevoalanyl-, alkali action
(LEVENE and PFALTZ)
1926, 68, 277

Glycine—continued:

Glycyl-, respiratory metabolism, influence
(PLUMMER, DEUEL, and LUSK)
1926, 69, 339

Metabolism, hydrazine intoxication, effect
(LEWIS and IZUME)
1926-27, 71, 33

Synthesis, sodium benzoate effect
(SWANSON)
1924-25, 62, 565

Glycocoll:

Specific dynamic action, urethane narcosis, influence
(GUTTMACHER and WEISS)
1927, 72, 283

Glycogen:

Formation, inulin effect
(BODEY, LEWIS, and HUBER)
1927, 75, 715

— rate, liver, fructose absorption (CORI)
1926, 70, 577

— —, — absorption, inulin effect (CORI)
1926, 70, 577

— —, liver, galactose absorption (CORI)
1926, 70, 577

— —, — absorption, inulin effect (CORI)
1926, 70, 577

— —, —, glucose absorption (CORI)
1926, 70, 577

— —, —, — absorption, inulin effect (CORI)
1926, 70, 577

—, sugar oxidation, fructose absorption, and inulin, effect (CORI and CORI)
1927, 73, 555

—, —, —, — absorption, effect (CORI and CORI)
1927, 73, 555

Glycogen—continued:

Formation, sugar oxidation, glucose absorption, and insulin, relation (CORI and CORI)

1926, 70, 557

—, — —, — absorption, relation (CORI and CORI)

1926, 70, 557

Liver, fasted, depancreatized dogs (CHAIKOFF)

1927, 74, 203

—, glucose, transformation *in vitro* (LUNDSGAARD and HOLBØLL)

1926, 68, 475

—, synthesis, sodium *r*-lactate effect (ABRAMSON, EGGLETON, and EGGLETON)

1927, 75, 763

Muscles, fasted, depancreatized dogs (CHAIKOFF)

1927, 74, 203

Storage, exophthalmic goiter (RICHARDSON, LEVINE, and DU BOIS)

1926, 67, 737

Synthesis, liver, sodium *r*-lactate effect (ABRAMSON, EGGLETON, and EGGLETON)

1927, 75, 763

Tissues, experimentally induced obesity (FOSTER and BENNINGHOVEN)

1926, 70, 285

Tumors, malignant (CORI and CORI)

1925, 64, 11

Glycogenase:

Hydrogen ion concentration, optimum (VISSCHER)

1926, 69, 3

Glycol aldehyde:

Ketolytic reaction (SHAFER and FRIEDEMANN)

1924, 61, 585

Glycol thymine:

Oxidation (BAUDISCH and DAVIDSON)

1925, 64, 233

Glycolysis:

(MORGULIS and BARKUS)

1925, 63, lxviii

Blood (TOLSTOI)

1924, 60, 69

— and muscle, comparison (RONZONI)

1927, 74, xliii

—, diabetes (DENIS and GILES)

1923, 56, 739

(TOLSTOI)

1924, 60, 69

—, —, rate (CAJORI and CROUTER)

1924, 60, 765

—, leucemia (SCHMITZ and GLOVER)

1927, 74, 761

—, non-diabetic (DENIS and GILES)

1923, 56, 739

—, rate (CAJORI and CROUTER)

1924, 60, 765

In vitro (MORGULIS and BARKUS)

1925, 65, 1

Muscle and blood, comparison (RONZONI)

1927, 74, xliii

Glycosuria:

Benign, glucose, blood (LUNDSGAARD and HOLBØLL)

1925, 65, 343

Phlorhizin, insulin and (COLWELL)

1924, 61, 289

Renal, carbohydrate utilization (LADD and RICHARDSON)

1925, 63, 681

Glycuronic acid:

- Benzoyl, preparation
(QUICK) 1926, 69, 549
- Borneol, preparation
(QUICK) 1927, 74, 331
- Conjugated, depancrea-
tized dog, production
(QUICK) 1926, 70, 59
- Menthol, synthesis
(QUICK) 1924, 61, 679
- , urine (QUICK)
1924, 61, 667
- 3-Methyl- (LEVENE and
MEYER) 1924, 60, 173
- Origin in organism (QUICK)
1926, 70, 397
- Preparation (QUICK)
1927, 74, 331
- β , *d*-Glycuronic acid mono-
benzoate:
Preparation (QUICK)
1926, 69, 549

Glycylglycine:

- Respiratory metabolism,
influence (PLUMMER,
DEUEL, and LUSK)
1926, 69, 339

Glycylglycyllevoalanylglycine:

- Alkali action (LEVENE and
PFALTZ) 1926, 68, 277

Glycyllevoalanylglycine:

- Alkali action (LEVENE and
PFALTZ) 1926, 68, 277

Glyoxal(s):

- Alkali and hydrogen per-
oxide action (FRIEDE-
MANN) 1927, 73, 331

Glyoxal(s)—continued:

- Determination, colori-
metric (ARIYAMA)
1927, 74, xlv
- Ketolytic reaction (SHAF-
FER and FRIEDEMANN)
1924, 61, 585

Glyoxalase:

- (ARIYAMA)
1927, 74, xlv

Goiter:

- Exophthalmic, glycogen
storage (RICHARDSON,
LEVINE, and DU BOIS)
1926, 67, 737
- Iodine, natural waters,
relation (MCCLENDON)
1923, 55, xvi

Gossypol:

- I (CLARK)
1927, 75, 725
- Preparation, purification,
and properties (CLARK)
1927, 75, 725
- Protein digestion, peptic-
tryptic, effect (JONES
and WATERMAN)
1923, 56, 501

Gout:

- Uric acid problem (FOLIN,
BERGLUND, and DERICK)
1924, 60, 361

Grain:

- Cod liver oil antirachitic
factor, destruction by
(HART, STEENBOCK, and
LEPKOVSKY)
1925, 65, 571
- Irrigation water, nutrition
relation (GREAVES and
CARTER)
1923-24, 58, 531

Grape:

- Anthocyan, Clinton
(ANDERSON and NABEN-
HAUER) 1924, 61, 97

Grape—continued:

- Anthocyanins, Concord
(ANDERSON) 1923, 57, 795
- , Norton (ANDERSON)
1923, 57, 795
- , Seibel (ANDERSON)
1924, 61, 685
- Pigments, chemistry
(ANDERSON) 1923, 57, 795
- II (ANDERSON, and
NABENHAUER) 1924, 61, 97
- III (ANDERSON)
1924, 61, 685

Grass:

- Green, bone meal and,
calcium balance, milk-
ing cows, effect (HART,
STEENBOCK, HOPPERT,
and HUMPHREY)
1923-24, 58, 43
- , — — —, phosphorus
balance, milking cows,
effect (HART, STEEN-
BOCK, HOPPERT, and
HUMPHREY)
1923-24, 58, 43
- , calcium balance, milk-
ing cows, effect (HART,
STEENBOCK, HOPPERT,
and HUMPHREY)
1923-24, 58, 43
- , phosphorus balance,
milking cows, effect
(HART, STEENBOCK,
HOPPERT, and HUM-
PHREY)
1923-24, 58, 43

Gross:

- Trypsin determination,
modification (KAI)
1922, 52, 133

Growth:

- Arginine relation (ROSE
and COX) 1924, 59, xiv
1924, 61, 747
- Bone. I (HAMMETT)
1925, 64, 409
- II HAMMETT)
1925, 64, 685
- III (HAMMETT)
1925, 64, 693
- in, ash of, para-
thyroid gland rôle (HAM-
METT) 1927, 72, 505
- — —, thyroid gland
rôle (HAMMETT)
1927, 72, 505
- — —, calcium of, para-
thyroid gland rôle (HAM-
METT) 1927, 72, 527
- — —, thyroid gland
rôle (HAMMETT)
1927, 72, 527
- — —, magnesium of, para-
thyroid gland rôle (HAM-
METT) 1927, 72, 527
- — —, thyroid gland
rôle (HAMMETT)
1927, 72, 527
- — —, organic matter of,
parathyroid gland rôle
(HAMMETT)
1927, 72, 505
- — — of, thyroid
gland rôle (HAMMETT)
1927, 72, 505
- — —, phosphorus of, para-
thyroid gland rôle (HAM-
METT) 1927, 72, 527
- — —, thyroid gland
rôle (HAMMETT)
1927, 72, 527
- — —, water of, para-
thyroid gland rôle (HAM-
METT) 1927, 72, 505

Growth—continued:

- Bone in, water of, thyroid gland rôle (HAMMETT) 1927, 72, 505
- Calcium, body, relation (SHERMAN and MACLEOD) 1925, 63, xxx
1925, 64, 429
- Carbohydrate-deficient diets, preformed (OSBORNE and MENDEL) 1924, 59, 13, xlv
- Carbohydrate-high diet (SMITH and CAREY) 1923-24, 58, 425
- Cholesterol influence (KNUDSON and RANDLES) 1925, 63, xxxi
- Cod liver oil, chickens, effect (DUNN) 1924, 61, 129
- Corn ration, sodium chloride addition (MITCHELL and CARMAN) 1926, 68, 165
- Creatine effect (CHANUTIN) 1927, 74, xxi
1927, 75, 779
- Creatinuria during (HARDING and GAEBLER) 1923, 57, 25
- Cystine rôle (SHERMAN and MERRILL) 1925, 63, 331
- Diet relation. I (OSBORNE and MENDEL) 1926, 69, 661
II (MENDEL and CANNON) 1927, 75, 779
- Fat-high diet (SMITH and CAREY) 1923-24, 58, 425
- Fat-rich diets (LEVINE and SMITH) 1927, 72, 223

Growth—continued:

- Fat-soluble vitamin and calcium intake, relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71
- — — phosphorus intake, relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71
- Food effect, lactation period (SHERMAN and MUHLFELD) 1922, 53, 41
- requirements. I (PALMER and KENNEDY) 1927, 74, 591
II (PALMER and KENNEDY) 1927, 75, 619
- , simplified, effect. II (SHERMAN and MUHLFELD) 1922, 53, 41
III (SHERMAN and CROCKER) 1923, 53, 49
IV (SHERMAN and CAMPBELL) 1924, 59, xlv
1924, 60, 5
- Foodstuffs, treatment, relation (MILLER and YATES) 1924-25, 62, 259
- Histidine relation (ROSE and COX) 1924, 59, xiv
1924, 61, 747
- replacement by creatine in diet (COX and ROSE) 1926, 68, 769
- — — creatinine in diet (COX and ROSE) 1926, 68, 769
- — — other imidazoles, effect (COX and ROSE) 1926, 67, iii

Growth—continued:

- Histidine replacement by purines in diet (COX and ROSE) 1926, 68, 769
- Lactation period, food effect (SHERMAN and MUHLFELD) 1922, 53, 41
- Light effect (HART, STEENBOCK, LEPKOVSKY, and HALPIN) 1923-24, 58, 33
 - relation (STEENBOCK and NELSON) 1923, 56, 355
- Manganese effect (LEVINE and SOHM) 1924, 59, xlviii
- Milk, mineral deficiency (DANIELS and HUTTON) 1925, 63, 143
 - value (SHERMAN and CROCKER) 1922, 53, 49
- Mineral content, rat, during (BUCKNER and PETER) 1922, 54, 5
- Nutrients, proportion and quality, effect (PALMER and KENNEDY) 1927, 75, 619
- Nutrition, chick. I (BETHKE, KENNARD, and KIK) 1925, 63, 377
- Phosphorus, body, relation (SHERMAN and QUINN) 1926, 67, xxxiii, 667
- Potassium relation, young rats (MILLER) 1923, 55, 61
 - requirement (MILLER) 1926, 70, 587
- Proline indispensability (SURE) 1924, 59, xv, 577

Growth—continued:

- Promoting and antineuritic substances, differentiation (HAUGE and CARRICK) 1926, 69, 403
 - property, air, ultraviolet irradiation (NELSON and STEENBOCK) 1924-25, 62, 575
 - —, cod liver oil (GOLDBLATT and MORITZ) 1926-27, 71, 127
 - —, direct irradiation (GOLDBLATT and MORITZ) 1926-27, 71, 127
 - —, fats (STEENBOCK and BLACK) 1925, 64, 263
 - —, —, unsaponifiable constituents, light exposure, effect (STEENBOCK and BLACK) 1925, 64, 263
 - —, irradiated fat (GOLDBLATT and MORITZ) 1926-27, 71, 127
 - substances, bacterial origin (DAMON) 1923, 56, 895
 - vitamin, yeast, effect (DEAS) 1924, 61, 5
- Proteins, eggs, value (MITCHELL and CARMAN) 1924, 60, 613
 - , pork, value (MITCHELL and CARMAN) 1924, 60, 613
 - , whole wheat, value (MITCHELL and CARMAN) 1924, 60, 613
- Purified nutrients, effect (PALMER and KENNEDY) 1927, 74, 591
- Ration exposed to ultraviolet light, effect (STEENBOCK and BLACK) 1924, 61, 405

Growth—continued:

Scurvy effect (ANDERSON
and SMITH)

1924, 61, 181

Sodium benzoate effect
(GRIFFITH)

1927, 74, lxx

— chloride addition to corn
ration (MITCHELL and
CARMAN)

1926, 68, 165

Sulfur, elementary, effect
(LEWIS and LEWIS)

1927, 74, 515

Synthetic diet, adequacy
(HOGAN, GUERRANT, and
KEMPSTER)

1925, 64, 113

Vitamin B (OSBORNE and
MENDEL)

1925, 63, 233

—, yeast (KENNEDY and
PALMER)

1922, 54, 217

Guanidine:

Methyl-, creatine from,
muscle (HAMMETT)

1923, 55, 323

Parathyroid tetany, rela-
tion (COLLIP and CLARK)

1926, 67, 679

Urine, parathyroidecto-
mized dogs (GREEN-
WALD)

1924, 59, 329

Guanine:

Nucleotide, crystalline
(BUELL and PERKINS)

1927, 72, 21

—, isolation, tea leaves
(CALVERY)

1927, 72, 549

Guanosine:

Caffeine origin, relation
(CAMARGO)

1923-24, 58, 831

Guanosine—continued:

Coffee tree, caffeine origin,
relation (CAMARGO)

1923-24, 58, 831

Gum arabic:

Adsorption (CLARK and
MANN)

1922, 52, 157

Emulsifying agent, action
as (CLARK and MANN)

1922, 52, 157

Gutzeit:

Arsenic determination,
electrolytic modification
(LAWSON and SCOTT)

1925, 64, 23

Electro-, apparatus, arsenic
determination, insect
tissue (FINK)

1927, 72, 737

H**Hahn:**

Protein determination
(SEIBERT)

1926, 70, 265

Proteose determination
(SEIBERT)

1926, 70, 265

Hair:

Cholesterol (ECKSTEIN)

1927, 73, 363

Cystine (WILSON and
LEWIS)

1927, 73, 543

Hydrolysis, alkaline
(HOFFMAN)

1925, 65, 251

Harris-Benedict:

Basal metabolic rate stand-
ard (BOOTHBY and
SANDIFORD)

1922, 54, 767

Hatchability:

- Egg, ultra-violet light influence (HART, STEENBOCK, LEPKOVSKY, KLETZIEN, HALPIN, and JOHNSON)
1925, 65, 579

Hay:

- Alfalfa, calcium balance, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

- , — metabolism, dairy cows, effect (TURNER, HARDING, and HARTMAN)

1927, 74, xxvii

- , phosphorus balance, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

- , — metabolism, dairy cows, effect (TURNER, HARDING, and HARTMAN)

1927, 74, xxvii

- Antirachitic properties, climatic conditions, relation (STEENBOCK, HART, ELVEHJEM, and KLETZIEN)

1925, 66, 425

- , —, ultra-violet light irradiation (STEENBOCK, HART, ELVEHJEM, and KLETZIEN)

1925, 66, 425

- Clover, calcium metabolism, dairy cows, effect (TURNER, HARDING, and HARTMAN)

1927, 74, xxvii

Hay—continued:

- Clover, phosphorus metabolism, dairy cows, effect (TURNER, HARDING, and HARTMAN)

1927, 74, xxvii

- Timothy, and calcium phosphate (bone meal), calcium balance, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

- , — — (bone meal), phosphorus balance, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

- , calcium balance, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

- , phosphorus balance, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

Heart:

- Beef, protein, nutrition value (MITCHELL and BEADLES)

1926-27, 71, 429

- Cardiac aglucones, lactone group, double bond association (JACOBS, HOFFMANN, and GUSTUS)

1926, 70, 1

- glucosides, structure and biological action, relationship (JACOBS and HOFFMANN)

1927, 74, 787

Heart—continued:

Failure, blood protein, inorganic bases, relation (SALVESEN and LINDER) 1923-24, 58, 617

—, — —, — phosphates, relation (SALVESEN and LINDER) 1923-24, 58, 617

—, body fluids, protein, inorganic bases, relation (SALVESEN and LINDER) 1923-24, 58, 617

—, — —, —, inorganic phosphates, relation (SALVESEN and LINDER) 1923-24, 58, 617

Muscle, beef, fatty acids, unsaturated, distribution (BLOOR) 1926, 68, 33

Poisons, structural relationship (JACOBS and HOFFMANN) 1926, 67, 333

Puncture, technique (SCHULTZ) 1924, 60, 189

Heat:

Amylase, malt, destruction (COOK) 1925, 65, 135

—, pancreas, destruction (COOK) 1925, 65, 135

Blood serum, effect (LOEB, FLEISHER, and TUTTLE) 1922, 51, 461

External, application, acid-base equilibrium, body, effect (CAJORI, CROUTER, and PEMBERTON) 1923, 57, 217

Milk, calcium compounds, solubility effect (BELL) 1925, 64, 391

Heat—continued:

Milk coagulation (LEIGHTON and MUDGE) 1923, 56, 53

—, mineral metabolism, infants, effect (DANIELS and STEARNS) 1924, 61, 225

—, phosphorus compounds, solubility effect (BELL) 1925, 64, 391

Production, carbon dioxide ratio to, cattle (BRAMAN) 1924, 60, 79

— during work, fatigue influence (WANG, STROUSE, and SMITH) 1927, 74, xxxvii

—, nucleic acid metabolism, influence (RINGER and RAPPORT) 1923-24, 58, 475

Protein denaturation (WU and WU) 1925, 64, 369

— nutritive value, effect (GOLDBLATT and MORITZ) 1927, 72, 321

Vitamin A formation, plant tissues, influence (COWARD) 1927, 72, 781

— B destruction, hydrogen ion concentration effect (SHERMAN and BURTON) 1926, 70, 639

Hederagenin:

Structure (JACOBS) 1925, 63, 631

Hederagenin methyl ester:

Oxidation (JACOBS and GUSTUS) 1926, 69, 641

Helianthus annuus:

See Sunflower.

Helix aspersa:*See* Snail.**Helix pomatia:***See* Snail.**Hematoporphyrin:**Calcium deposition, bones,
rickets, effect (VAN
LEERSUM)

1923-24, 58, 835

Hemiptera:Anthocyanin, coloration
cause (PALMER and
KNIGHT)

1924, 59, 451

Coloration cause (PALMER
and KNIGHT)

1924, 59, 451

Flavone-like pigments,
coloration cause (PAL-
MER and KNIGHT)

1924, 59, 451

Hemocyanin:Blood containing, carbon
dioxide transport (RED-
FIELD, COOLIDGE, and
HURD)

1926, 69, 475

— —, oxygen transport
(REDFIELD, COOLIDGE,
and HURD)

1926, 69, 475

Hemoglobin:Acid properties (HASTINGS,
VAN SLYKE, NEILL, and
HEIDELBERGER)

1924, 59, xx

Acidity, carbon monoxide
effect (HASTINGS, SEND-
ROY, MURRAY, and
HEIDELBERGER)

1924, 61, 317

Base bound by, osmotic
pressure (AUSTIN, SUN-
DERMAN, and CAMACK)

1926, 70, 427

Bases and, relation (ADAIR)

1925, 63, 517

Hemoglobin—continued:Bicarbonate-sodium chlo-
ride systems, Debye-
Hückel theory (STADIE
and HAWES)

1927, 74, xxxi

Blood, carbon dioxide ab-
sorption curve, relation
(PETERS, BULGER, and
EISENMAN)

1923-24, 58, 747

—, determination, colori-
metric (WONG)

1923, 55, 421

Building, inorganic iron
utilization, nutritional
anemia (HART, STEEN-
BOCK, ELVEHJEM, and
WADDELL)

1925, 65, 67

Carbon dioxide and, equi-
librium (ADAIR)

1925, 63, 503

Chemistry. I (FERRY)

1923, 57, 819

II (FERRY)

1924, 59, 295

Crystalline isoelectric,
preparation (STADIE and
ROSS)

1926, 68, 229

Determination, acid hema-
tin method, standard for
(OSGOOD and HASKINS)

1923, 57, 107

—, colorimetric (TERRILL)

1922, 53, 179

—, —, blood (WONG)

1923, 55, 421

—, optical instrument
(NEWCOMER)

1923, 55, 569

—, refractometric (STOD-
DARD and ADAIR)

1923, 57, 437

Egg administration, chil-
dren, influence (ROSE)

1926, 67, xx

Hemoglobin—continued:

- Electrochemical study
(CONANT) 1923, 57, 401
- Nitrogen adsorption (CONANT and SCOTT) 1926, 68, 107
- Osmotic pressure (AUSTIN, SUNDERMAN, and CAMACK) 1926, 70, 427
- Oxidations, tension of molecular oxygen, influence (NEILL and HASTINGS) 1925, 63, 479
- Oxygen and, equilibrium between (FERRY) 1924, 59, 295
- dissociation curve (ADAIR) 1925, 63, 529
- saturation, insulin effect (OLMSTED and TAYLOR) 1924, 59, xxx
- Oxygenated, acid properties (HASTINGS, VAN SLYKE, NEILL, HEIDELBERGER, and HARRINGTON) 1924, 60, 89
- Preparation (FERRY) 1923, 57, 819
- Reactions, classification (ADAIR) 1925, 63, 493
- , theory (ADAIR) 1925, 63, 499
- Reduced, acid properties (HASTINGS, VAN SLYKE, NEILL, HEIDELBERGER, and HARRINGTON) 1924, 60, 89
- , alkali-binding value (VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL) 1922, 54, 481

Hemoglobin—continued:

- Reduced, buffer value (VAN SLYKE, HASTINGS, HEIDELBERGER, and NEILL) 1922, 54, 481
- Sodium bicarbonate and, carbon dioxide curves, blood (ADAIR) 1925, 63, 515
- Solutions, bicarbonate ion, activity coefficient (STADIE and HAWES) 1927, 74, xxxi
- System. I (ADAIR) 1925, 63, 493
- II (ADAIR) 1925, 63, 499
- III (ADAIR) 1925, 63, 503
- IV (ADAIR) 1925, 63, 515
- V (ADAIR) 1925, 63, 517
- VI (ADAIR) 1925, 63, 529

Hemoglobinometer:

- (HASKINS and OSGOOD) 1926, 67, lx
- Sahli, permanent standard (HASKINS) 1923, 57, 111

Hemorrhage:

- Acid-base equilibrium, blood, changes (BENNETT) 1926, 69, 675
- Blood cells, inorganic composition, effect (KERR) 1926, 67, 689
- serum, inorganic composition, effect (KERR) 1926, 67, 689
- Lactic acid formation following (RIEDEL) 1927, 74, 123

Hemp-seed:

Vitamin E (SURE)
1924-25, 62, 371

Henderson-Hasselbalch:

Dissociation constant, ap-
parent, hydrogen ion
concentration, blood
serum (CULLEN, KEE-
LER, and ROBINSON)

1925, 66, 301

— —, —, variations
(PETERS, BULGER, and
EISENMAN)

1923, 55, 687

Heterocyclic compounds:

Fate, animal body (Nov-
ELLO) 1927, 74, 33

Hexacosanic acid:

Fatty acids, normal, syn-
thesis from stearic acid
to (LEVENE and TAY-
LOR) 1924, 59, 905

Hexonebases:

Electrolytic separation,
protein hydrolysates
(SCHMIDT and FOSTER)

1923, 55, xvi

(FOSTER and SCHMIDT)

1923, 56, 545

Hexonic acids:

Aldose oxidation, prepara-
tion from (GOEBEL)

1927, 72, 809

2-Amino-, 2-aminohexoses,
configurational relation-
ship (LEVENE)

1925, 63, 95

—, sodium salts, specific
rotation (LEVENE)

1924, 59, 123

—, specific rotation
(LEVENE)

1924, 59, 123

Sodium salts, specific rota-
tion (LEVENE)

1924, 59, 123

Specific rotation (LEVENE)

1924, 59, 123

Hexose(s):

Absorption, intestine
(CORI)

1925, 66, 691

Acetoacetic acid reaction
(FRIEDEMANN)

1925, 63, xxi

2-Amino-, 2-aminohexonic
acids, configurational
relationship (LEVENE)

1925, 63, 95

3-Amino-, deamination
(LEVENE and SOBOTKA)

1926-27, 71, 181

Fermentation, pentose
fermenting bacteria
(PETERSON, FRED, and
ANDERSON)

1922, 53, 111

Hippuric acid:

Determination (GRIFFITH)

1926, 67, xv

(QUICK)

1926, 67, 477

(GRIFFITH)

1926, 69, 197

Elimination, benzoate
administration influence
(GRIFFITH and LEWIS)

1923, 57, 697

—, protein diet influence
(GRIFFITH and LEWIS)

1923, 57, 697

Excretion (GRIFFITH)

1925, 63, xix

—, benzoate administra-
tion with amino acids
(GRIFFITH and LEWIS)

1923, 57, 1

— rate (LEWIS and GRIFFITH)

1923, 55, xxii

Hydrolysis, alimentary
canal (GRIFFITH and
CAPPEL)

1925, 66, 683

Oral administration, effect
(GRIFFITH)

1925, 66, 671

Hippuric acid—continued:

- Synthesis (LEWIS and GRIFFITH) 1923, 55, xxii
 (GRIFFITH) 1925, 63, xix
 —, animal organism. V (GRIFFITH and LEWIS) 1923, 57, 1
 VI (GRIFFITH and LEWIS) 1923, 57, 697
 —, benzoate administration influence (GRIFFITH and LEWIS) 1923, 57, 697
 —, — — with amino acids (GRIFFITH and LEWIS) 1923, 57, 1
 —, diet influence (GRIFFITH) 1925, 64, 401
 —, protein diet influence (GRIFFITH and LEWIS) 1923, 57, 697
 —, rabbit (GRIFFITH) 1926, 69, 197

Hirudin:

- Blood plasma, serum and tissue extract action (LOEB, FLEISHER, and TUTTLE) 1922, 51, 461

Histamine:

- Absorption, intestine, mammalian organism (KOESSLER and HANKE) 1924, 59, 889
 Acid-base balance, effect (HILLER) 1926, 68, 833
 Blood chlorides, effect (DRAKE and TISDALL) 1926, 67, 91
 — concentration, influence (UNDERHILL and ROTH) 1922, 54, 607

Histamine—continued:

- Detoxication, intestine, mammalian organism (KOESSLER and HANKE) 1924, 59, 889
 Intestine, obstructed, presence (GERARD) 1922, 52, 111
 Occurrence, mammalian organism (HANKE and KOESSLER) 1924, 59, 879
 Production, intestinal microorganisms, laboratory media (HANKE and KOESSLER) 1924, 59, 855
 Protein catabolism, effect (HILLER) 1926, 68, 847
 Secretin preparations, constituent (PARSONS and KOCH) 1924, 59, xxxviii

Histidine:

- Arginine and, metabolism, interchangeability (ROSE and COX) 1926, 68, 217
 —, separation (VICKERY and LEAVENWORTH) 1926, 68, 225
 II (VICKERY and LEAVENWORTH) 1927, 72, 403
 III (VICKERY and LEAVENWORTH) 1927, 75, 115
 Compound (VICKERY) 1926-27, 71, 303
 Creatine metabolism, relation (ROSE and COOK) 1925, 63, xvii
 1925, 64, 325
 — replacement, growth effect (COX and ROSE) 1926, 68, 769

Histidine—continued:

- Creatinine replacement,
growth effect (COX and ROSE)
1926, 68, 769
- Deficient diet, imidazoles,
synthetic, supplement
(COX and ROSE)
1926, 68, 781
- Determination, protein
(HÄNKE)
1925, 66, 475
- Growth relation (ROSE and COX)
1924, 59, xiv
1924, 61, 747
- Imidazole replacement,
growth effect (COX and ROSE)
1926, 67, iii
- Protein (HÄNKE)
1925, 66, 489
- , determination (HÄNKE)
1925, 66, 475
- Purine metabolism, relation (ROSE and COOK)
1925, 63, xvii
1925, 64, 325
- replacement, growth
effect (COX and ROSE)
1926, 68, 769
- Synthesis, body (HÄRROW
and SHERWIN)
1926, 70, 683

Homogentisic acid:

- Determination, colorimetric, urine (BRIGGS)
1922, 51, 453

Honey:

- Invertase (NELSON and COHN)
1924, 61, 193
- , sucrose hydrolysis,
fructose influence (NELSON and SOTTERY)
1924-25, 62, 139
- , —, glucose influence
(NELSON and SOTTERY)
1924-25, 62, 139

Honey bee:

See Bee.

Hopkins-Cole:

- Glyoxylic acid reagent,
tryptophane, free, blood,
determination (CARY)
1926, 67, xxxix

Humerus:

- Calcium, parathyroidectomy effect (HAMMETT)
1923, 57, 285
- , thyroparathyroidectomy effect (HAMMETT)
1923, 57, 285
- Magnesium, parathyroidectomy effect (HAMMETT)
1923, 57, 285
- , thyroparathyroidectomy effect (HAMMETT)
1923, 57, 285
- Phosphorus, parathyroidectomy effect (HAMMETT)
1923, 57, 285
- , thyroparathyroidectomy effect (HAMMETT)
1923, 57, 285

Hydantoic acid:

- Metabolism (GÄEBLER and KÄLTCH)
1926, 70, 763

Hydantoin:

- Metabolism (GÄEBLER and KÄLTCH)
1926, 70, 763
- Nucleus (β -methylhydantoin) destruction, body (GÄEBLER)
1926, 67, lv
- Oxidation, catalytic (BAUDISCH and DAVIDSON)
1927, 75, 247

Hydnocarpates:

- Nitrogen partition, urine, influence (READ)
1924-25, 62, 541

Hydrazine:

Blood concentration influence (UNDERHILL and KARELITZ)

1923-24, 58, 147

— sugar, influence (UNDERHILL and KARELITZ)

1923-24, 58, 147

Derivatives, metabolism, influence. II (LEWIS and IZUME)

1926-27, 71, 33

III (IZUME and LEWIS)

1926-27, 71, 51

Hypoglycemia, mechanism (IZUME and LEWIS)

1926-27, 71, 51

Intoxication, blood non-protein nitrogen, effect (LEWIS and IZUME)

1926-27, 71, 33

—, glycine metabolism effect (LEWIS and IZUME)

1926-27, 71, 33

Liver injury action (BODANSKY)

1923-24, 58, 799

Metabolism, influence. II (LEWIS and IZUME)

1926-27, 71, 33

III (IZUME and LEWIS)

1926-27, 71, 51

Hydrazine hydrate:

Uridine, action (LEVENE and BASS)

1926-27, 71, 167

Hydrazine sulfate:

Alkalosis following injection (HENDRIX and McAMIS)

1924, 59, xxii

— produced by (HENDRIX and McAMIS)

1924, 61, 45

Hydrocarbon(s):

Pollen, corn, White Flint (ANDERSON)

1923, 55, 611

Hydrocarbon(s)—continued:

Tertiary, oxidation (LEVENE and TAYLOR)

1922, 54, 351

Hydrochloric acid:

Stomach, acid-forming enzyme, rôle in mechanism (HANKS)

1926, 67, xi

—, formation, organic chlorides, tissues, relation (HANKS and DONOVAN)

1927, 74, xxiv

Hydrogen:

Electrode, hydrogen ion concentration determination (MEEKER and OSER)

1926, 67, 307

—, — — — determination, blood (MEEKER and OSER)

1926, 67, 307

—, — — — determination, urine (MEEKER and OSER)

1926, 67, 307

— vessel, Clark, modification (CULLEN)

1922, 52, 521

Hydrogen cyanide:

Determination, aeration method, amygdalin (ROE)

1923-24, 58, 667

Hydrogen dioxide:

Bile pigments, action (VON OETTINGEN and SOLL-MANN)

1927, 72, 635

Hydrogen ion:

Blood, oxygenated, distribution (VAN SLYKE, HASTINGS, MURRAY, and SENDROY)

1925, 65, 701

Hydrogen ion—continued:

Blood, reduced, distribution
(VAN SLYKE, HASTINGS,
MURRAY, and SENDROY)

1925, 65, 701

Death, changes (KOEHLER)

1923, 55, viii

Equilibrium, determina-
tion (KUGELMASS and
SHOHL)

1923-24, 58, 649

Hydrogen ion concentration:

Amylase, *Aspergillus*
oryzae, starch-liquefying
activity, effect (MASLOW
and DAVISON)

1926, 68, 83

Arginine and histidine
silver compounds, separa-
tion, effect (VICKERY
and LEAVENWORTH)

1927, 72, 403

Autolysis (SEVRINGHAUS,
KOEHLER, and BRAD-
LEY)

1923, 57, 163

Blood bicarbonate relation
(PETERS, EISENMAN, and
BULGER)

1923, 55, 709

—, carcinoma. I (CHAM-
BERS)

1923, 55, 229

II (CHAMBERS and
KLEINSCHMIDT)

1923, 55, 257

—, coagulation changes
(HIRSCH)

1924, 61, 795

—, determination, colori-
metric (HASTINGS and
SENDROY)

1924, 61, 695

(McCLENDON, RUSSELL,
and TRACY)

1926, 70, 705

—, —, —, micro (MYERS,
SCHMITZ, and BOOHER)

1923, 57, 209

**Hydrogen ion concentration—
continued:**

Blood, determination, gaso-
metric (EISENMAN)

1926-27, 71, 611

—, —, micro (HAWKINS)

1923, 57, 493

—, —, titrimetric double
hydrogen electrode sys-
tem (MEEKER and OSER)

1926, 67, 307

—, —, — — quinhydrone
electrode system
(MEEKER and OSER)

1926, 67, 307

—, diabetes, acidosis, in-
sulin treatment (CULLEN
and JONAS)

1923, 57, 541

— plasma, Cullen colori-
metric method (BEN-
NETT)

1926, 69, 697

— —, determination,
colorimetric (CULLEN)

1922, 52, 501

(AUSTIN, STADIE, and
ROBINSON)

1925, 66, 505

— —, kidney function in-
fluence (MURRAY and
HASTINGS)

1925, 65, 265

— —, normal variations
(CULLEN and ROBINSON)

1923, 57, 533

— —, respiration influence
(MURRAY and HAST-
INGS)

1925, 65, 265

— serum and plasma, com-
parison (BENNETT)

1926, 69, 693

— —, determination,
colorimetric (AUSTIN,
STADIE, and ROBINSON)

1925, 66, 505

Hydrogen ion concentration—
continued:

Blood serum, determination, quinhydrone electrode (CULLEN and BILLMANN) 1925, 64, 727

—, —, dissociation constant, apparent, Henderson-Hasselbalch equation (CULLEN, KEELER, and ROBINSON)

1925, 66, 301

—, —, poikilothermous animal, different temperatures (AUSTIN, SUNDERMAN, and CAMACK)

1927, 72, 677

Body fluid, honey bee, larval activity, changes (BISHOP)

1923-24, 58, 543

—, —, —, metamorphosis, changes (BISHOP)

1923-24, 58, 543

Casein scission, hydrolytic, influence (CARPENTER) 1926, 67, 647

Catalase reaction, temperature and (MORGULIS, BEBER, and RABKIN)

1926, 68, 547

Cerebrospinal fluid, determination (SHOHL and McQUARRIE)

1925, 63, xii

—, —, —, colorimetric (McQUARRIE and SHOHL)

1925, 66, 367

Colorimetric readings, conversion chart (McCLENDON) 1922, 54, 647

Cream, determination, colorimetric (SHARP and McINERNEY)

1926, 70, 729

Hydrogen ion concentration—
continued:

Determination, cerebrospinal fluid (SHOHL and McQUARRIE)

1925, 63, xii

—, —, colorimetric and electrometric, comparison (CULLEN and HASTINGS) 1922, 52, 517

—, —, blood (HASTINGS and SENDROY)

1924, 61, 695

(McCLENDON, RUSSELL, and TRACY)

1926, 70, 705

—, —, —, plasma (CULLEN)

1922, 52, 501

(AUSTIN, STADIE, and ROBINSON)

1925, 66, 505

—, —, —, serum (AUSTIN, STADIE, and ROBINSON)

1925, 66, 505

—, —, cerebrospinal fluid (McQUARRIE and SHOHL)

1925, 66, 367

—, —, cream (SHARP and McINERNEY)

1926, 70, 729

—, —, Cullen method, blood plasma (BENNETT)

1926, 69, 697

—, —, micro, blood (MYERS, SCHMITZ, and BOOHER)

1923, 57, 209

—, —, milk (SHARP and McINERNEY)

1926, 70, 729

—, —, unbuffered solutions (STERN)

1925, 65, 677

—, —, urine (HASTINGS, SENDROY, and ROBSON)

1925, 65, 381

Hydrogen ion concentration—
continued:

- Determination, colorimetric, water (STERN) 1925, 65, 677
- , —, whey (SHARP and MCINERNEY) 1926, 70, 729
- , electrometric and colorimetric, comparison (CULLEN and HASTINGS) 1922, 52, 517
- , — — —, comparison, gastric contents (KAHN and STOKES) 1926, 69, 75
- , gasometric, blood (EISENMAN) 1926-27, 71, 611
- , gastric contents (McCLENDON) 1924, 59, 437
- , method of obtaining cutaneous (capillary) blood (DRUCKER and CULLEN) 1925, 64, 221
- , micro, blood (HAWKINS) 1923, 57, 493
- , — vessel with electrode, blood and body fluids (DE EDS and HANZLIK) 1924, 60, 355
- , quinhydrone electrode, blood serum (CULLEN and BILLMANN) 1925, 64, 727
- , — —, feces (ROBINSON) 1925, 66, 811
- , saliva (STARR) 1922, 54, 43 (HENDERSON and MILLET) 1927, 75, 559
- , titrimetric double hydrogen electrode system (MEEKER and OSER) 1926, 67, 307

Hydrogen ion concentration—
continued:

- Determination, titrimetric double hydrogen electrode system, blood (MEEKER and OSER) 1926, 67, 307
- , — — — electrode system, urine (MEEKER and OSER) 1926, 67, 307
- , — — — quinhydrone electrode system (MEEKER and OSER) 1926, 67, 307
- , — — — electrode system, blood (MEEKER and OSER) 1926, 67, 307
- , — — — electrode system, urine (MEEKER and OSER) 1926, 67, 307
- Dextrinase, *Aspergillus oryzae*, dextrin-liquefying activity, effect (MASLOW and DAVISON) 1926, 68, 95
- Duodenum (HUME, DENIS, SILVERMAN, and IRWIN) 1924, 60, 633
- Feces (ROBINSON) 1922, 52, 445
- , quinhydrone electrode, determination (ROBINSON) 1925, 66, 811
- Gastric contents, determination (McCLENDON) 1924, 59, 437
- — —, electrometric and colorimetric methods, comparison (KAHN and STOKES) 1926, 69, 75
- Glycogenase action, optimum (VISSCHER) 1926, 69, 3

Hydrogen ion concentration—
continued:

Histidine and arginine
silver compounds, separation, effect (VICKERY
and LEAVENWORTH)
1927, 72, 403

Insulin treatment, acidosis, diabetic blood (CULLEN and JONAS)
1923, 57, 541

Intestinal contents (OKADA and ARAI)
1922, 51, 135

Intestine, antirachitic vitamin effect (YODER)
1927, 74, 321

Lipolytic action, tissue extracts at different (NOYES, SUGIURA, and FALK)
1923, 55, 653

—, tumor extracts at different (NOYES, SUGIURA, and FALK)
1923, 55, 653

Milk, determination, colorimetric (SHARP and McINERNEY)
1926, 70, 729

—, evaporated, stability during sterilization (BENTON and ALBERT)
1926, 68, 251

—, titratable acidity, relation (SHARP and McINERNEY)
1927, 75, 177

Oxygen consumption, tissues, effect (KOEHLER and REITZEL)
1925, 64, 739

Pepsin synthesis of protein, effect (WASTENHETS and BORRISOK)
1924-25, 62, 675

Hydrogen ion concentration—
continued:

Protease, tumor extracts, action (FALK, NOYES, and SUGIURA)
1922, 53, 75

Saliva, determination (STARR)
1922, 54, 43

(HENDERSON and MILLET)
1927, 75, 559

—, variations (STARR)
1922, 54, 55

Tungstic acid precipitation, protein, relation (MERRILL)
1924, 60, 257

Unbuffered solutions, determination, colorimetric (STERN)
1925, 65, 677

Urine, carbon dioxide loss, effect (MARSHALL)
1922, 51, 3

— chlorides, sleep effect (SIMPSON)
1926, 67, 505

—, waking effect (SIMPSON)
1925, 63, xxxii

—, determination, colorimetric (HASTINGS, SENDROY, and ROBSON)
1925, 65, 381

—, —, titrimetric double hydrogen electrode system (MEEKER and OSER)
1926, 67, 307

—, —, — quinhydrone electrode system (MEEKER and OSER)
1926, 67, 307

Vitamin B destruction by heat, effect (SHERMAN and BURTON)
1926, 70, 639

Hydrogen ion concentration—*continued*:

Water, determination,
colorimetric (STERN)

1925, 65, 677

Whey, determination,
colorimetric (SHARP and
McINERNEY)

1926, 70, 729

Hydrogen peroxide:

Cystine-, catalyst, reduction (ANDREWS)

1927, 74, xi

Temperature and, catalase
reaction (MORGULIS,
BERER, and RABKIN)

1926, 68, 521

Hydrogenase:

Frog muscle, specificity
(COLLETT)

1923-24, 58, 793

Hydroplasmia:

Pregnancy, blood protein
as index (PLASS and
BOGERT)

1924, 59, xxiv

Hydroxy acids:

2-, 3-, 4-, configurational
relationships. I (LE-
VENE and HALLER)

1926, 69, 165

II (LEVENE and HAL-
LER)

1926, 69, 569

 α -Hydroxy acids:

Alcohols, secondary, con-
figurational relationships
(LEVENE and HALLER)

1925, 65, 49

β -Hydroxy acids, configu-
rational relationships
(LEVENE and HALLER)

1925, 65, 49

 β -Hydroxy acids:

Alcohols, secondary, con-
figurational relationships
(LEVENE and HALLER)

1925, 65, 49

 β -Hydroxy acids—*continued*:

α -Hydroxy acids, configu-
rational relationships
(LEVENE and HALLER)

1925, 65, 49

Hydroxy amines:

Synthesis, Curtius method
(LEVENE and SCHEID-
EGGER), 1924, 60, 179

 β -Hydroxybutyric acid:

Propylene glycol, configu-
rational relationship
(LEVENE and WALTI)

1926, 68, 415

2-Hydroxybutyric acid:

Lactic acid, configurational
relationships (LEVENE
and HALLER)

1927, 74, 343

(CLOUGH)

1927, 75, 489

2-Hydroxycarboxylic acids:

Walden inversion (LEVENE,
MORI, and MIKESKA)

1927, 75, 337

 α -Hydroxyisopentacosanic acid:

Synthesis (LEVENE and
TAYLOR)

1922, 52, 227

Hydroxyl groups:

Determination, volumetric,
sugars and organic com-
pounds (PETERSON and
WEST)

1927, 74, 379

***m*-Hydroxyphenylacetic acid:**

Fate (MUENZEN, CERE-
CEDO, and SHERWIN)

1926, 68, 503

***l*-Hydroxystearic ethyl ester:**

Acidosis, influence (WEST
and BENEDICT)

1925, 66, 139

Hypercalcemia:

Blood serum calcium
(MORITZ)

1925, 66, 343

Hypercalcemia—continued:

Parathyroid extract, induced by (HJORT, ROBINSON, and TENDICK)
1925, 65, 117

Thyroparathyroidectomy, parathyroid extract, induced by (HJORT, ROBINSON, and TENDICK)
1925, 65, 117

Hyperglycemia:

Acid excretion, uranium nephritis, relation (HENDRIX and BODANSKY)
1924, 60, 657

Base excretion, uranium nephritis, relation (HENDRIX and BODANSKY)
1924, 60, 657

Drug, asphyxia relation (TATUM and ATKINSON)
1922, 54, 331

Glycerol effect (VOEGTLIN, THOMPSON, and DUNN)
1925, 64, 639

Sugar excretion, uranium nephritis, relation (HENDRIX and BODANSKY)
1924, 60, 657

Witte's peptone, production (MENTEN and MANNING)
1927, 72, 255

Hyperpnea:

Blood plasma, acid-base equilibrium (PETERS, BULGER, EISENMAN, and LEE)
1926, 67, 175

Hypertension:

Arterial, blood, peptide nitrogen (JACKSON, SHERWOOD, and MOORE)
1927, 74, 231

Hypobromite:

Urea, reaction (MENAUL)
1922, 51, 87

Hypocalcemia:

Blood serum calcium (MORITZ)
1925, 66, 343

Hypoglycemia:

Diabetes, phlorhizin, convulsions with (WIERZUCHOWSKI)
1926, 67, xlii

Hydrazine, mechanism (IZUME and LEWIS)
1926-27, 71, 51

Insulin, dihydroxyacetone effect (CAMPBELL and HEPBURN)
1926, 68, 575

—, intraperitoneal injection, absence after (HOSKINS and SNYDER)
1927, 75, 147

Ketone bodies, urine, insulin-induced (COLLIP)
1923, 55, xxxviii

-Producing principle, synthesis, normal animal (COLLIP)
1923-24, 58, 163

— substance in bacteria (LITTLE, LEVINE, and BEST)
1924, 59, xxxvii

Witte's peptone, production (MENTEN and MANNING)
1927, 72, 255

Icterus:

Bile acids, urine, determination (SCHMIDT and MERRILL)
1923, 55, xx

See also Jaundice.

Imidazole(s):

Excretion, urine (KOESSLER and HANKE)
1924, 59, 803

Imidazole(s)—continued:

Excretion, urine, nephritis
(KOESSLER and HANKE)

1924, 59, 803

Histidine replacement,
growth effect (COX and
ROSE)

1926, 67, iii

Metabolism (LEITER)

1925, 64, 125

Synthetic, histidine-defi-
cient diet, supplement
(COX and ROSE)

1926, 68, 781

Immunology:

Proteins, vegetable, alco-
hol-soluble. IX (LEWIS
and WELLS)

1925, 66, 37

Indigoids:

(DAVIDSON and BAUDISCH)

1925, 64, 619

Indole:

Derivatives, tryptophane-
deficient diet, effect
(JACKSON)

1927, 73, 523

Nitrogen metabolism,
effect (UNDERHILL and
KAPSINOW)

1922, 54, 717

Tryptophane, quantitative
separation (KRAUS)

1925, 63, 157, lxv

—synthesis, animal organ-
ism, rôle (SURE)

1924, 59, xvi

Indophenol:

Phenol test (GIBBS)

1927, 72, 649

Infant:

Blood inorganic phos-
phorus (ROSE, RIESEN-
FELD, and HANDLEMAN)

1925, 63, xlii

Copper absorption (HESS,
SUPPLEE, and BELLIS)

1923, 57, 725

Infant—continued:

Mineral metabolism, milk,
heated, effect (DANIELS
and STEARNS)

1924, 61, 225

Infection:

Ketogenic balance, rela-
tion (RICHARDSON and
LEVINE)

1925, 63, 465

Inflammation:

Aseptic, udder, milk effect
(SJOLLEMA and VAN DER
ZANDE)

1922, 53, 513

Inorganic bases:

Blood protein, Bright's dis-
ease, relation (SALVESEN
and LINDER)

1923-24, 58, 617

— —, heart failure, rela-
tion (SALVESEN and
LINDER)

1923-24, 58, 617

Body fluids, protein,
Bright's disease, relation
(SALVESEN and LINDER)

1923-24, 58, 617

— —, —, heart failure,
relation (SALVESEN and
LINDER)

1923-24, 58, 617

Inorganic composition:

Bone (HOWLAND, MAR-
RIOTT, and KRAMER)

1926, 68, 721

I (SHEAR and KRAMER)

1927, 74, ix

Inorganic constituents:

Blood. I (KERR)

1926, 67, 689

II (KERR)

1926, 67, 721

—, calcium salts adminis-
tration effect (SALVESEN,
HASTINGS, and McIN-
TOSH)

1924, 60, 327

Inorganic constituents—continued:

- Blood cells, hemorrhage effect (KERR)
1926, 67, 689
- , nephritis (DENIS)
1923, 56, 473
- , suprarenalectomy, changes (BAUMANN and KURLAND)
1926-27, 71, 281
- plasma (BRIGGS)
1923, 57, 351
- serum and cerebrospinal fluid, comparison (HAMILTON)
1925, 65, 101
- —, disease, ultrafiltration, study (PINCUS, PETERSON, and KRAMER)
1926, 68, 601
- —, hemorrhage effect (KERR)
1926, 67, 689
- —, nephritis (DENIS and HOBSON)
1923, 55, 183
- —, ultrafiltration, study (NEUHAUSEN and PINCUS)
1923, 57, 99
- Cerebrospinal fluid and blood serum, comparison (HAMILTON)
1925, 65, 101
- Diet, ophthalmia relation (McCOLLUM, SIMMONDS, and BECKER)
1922, 53, 313
- Ration, ophthalmia relation (JONES)
1927, 75, 139

Inorganic ion:

- Balance, blood, parathyroid tetany (GROSS and UNDERHILL)
1922, 54, 105

Inorganic ion—continued:

- Ratio, citrate administration effect (GROSS)
1923, 55, 729
- , oxalate administration effect (GROSS)
1923, 55, 729

Inorganic salts:

- Blood, pregnancy (UNDERHILL and DIMICK)
1923-24, 58, 133
- Carotene adsorption (WILLMOTT)
1927, 73, 587
- High diet, effect (OSBORNE, MENDEL, PARK, and WINTERNITZ)
1926-27, 71, 317
- Kidney excretion (DENIS)
1923, 55, 171
- Metabolism. I (GROSS and UNDERHILL)
1922, 54, 105
- II (GROSS)
1923, 55, 729
- IV (UNDERHILL and DIMICK)
1923-24, 58, 133
- V (UNDERHILL and GROSS)
1923-24, 58, 141
- , cocaine poisoning (UNDERHILL and GROSS)
1923-24, 58, 141

Inorganic substances:

- Carbohydrate metabolism, relation (HARROP and BENEDICT)
1924, 59, 683
- Nutritive value. I (FAIRHALL)
1926, 70, 495

Inositol:

- Blackberry (SANDO)
1926, 68, 403
- Dogwood (SANDO)
1926, 68, 403

Insect:

Metamorphosis, autolysis
and (BISHOP)

1923-24, 58, 567

Tissue, arsenic determina-
tion (FINK)

1927, 72, 737

Insulin:

(BLATHERWICK, MAX-
WELL, BERGER, and
SAHYUN)

1926, 67, xxxiii

(BLATHERWICK, BISCHOFF,
MAXWELL, BERGER, and
SAHYUN)

1927, 72, 57

Acetaldehyde formation,
animal body, influence
(SUPNIEWSKI)

1926, 70, 13

Acids, destructive action
(SHONLE and WALDO)

1925, 66, 467

Action (GREENWALD,
GROSS, and SAMET)

1924-25, 62, 401

Adsorption, benzoic acid
(MOLONEY and FIND-
LAY)

1923, 57, 359

Alkalies, destructive action
(SHONLE and WALDO)

1925, 66, 467

Alkaline compounds action
on (WITZEMANN and
LIVSHIS)

1923-24, 58, 463

— reserve, blood, diabetic
acidosis, effect (CULLEN
and JONAS)

1923, 57, 541

Ammonium hydroxide
action on (WITZEMANN
and LIVSHIS)

1923-24, 58, 463

Insulin—continued:

Amytal anesthesia,
metabolism effect

(CHAMBERS, DEUEL, and
MILHORAT)

1927, 75, 423

Analysis (DOISY and
WEBER)

1924, 59, xxxiv

Assay, Wyss chemical
method (BISCHOFF,
MAXWELL, and BLATH-
ERWICK)

1926, 67, 547

Blood, effect (BRIGGS,
KOECHIG, DOISY, and
WEBER)

1923-24, 58, 721

— inorganic phosphorus,
effect (KATAYAMA and
KILLIAN)

1926-27, 71, 707

— lactic acid, effect (BEST
and RIDOUT)

1925, 63, 197

(KATAYAMA and KIL-
LIAN)

1926-27, 71, 707

— sugar curves (JONAS,
MILLER, and TELLER)

1925, 63, lv

— —, effect (KATAYAMA
and KILLIAN)

1926-27, 71, 707

Carbohydrate metabolism,
effect (BLATHERWICK,
BELL, and HILL)

1924, 59, xxxv

1924, 61, 241

— —, intermediate, by
(VOEGTLIN, DUNN, and
THOMPSON)

1924, 59, xxxvii

Cerebrospinal fluid, injec-
tion effect (SUPNIEWSKI,
ISHIKAWA, and GEILING)

1927, 74, 241

Insulin—continued:

- Chemical behavior (PIPER,
ALLEN, and MURLIN)
1923-24, 58, 321
- reactions (BEST and
MACLEOD)
1923, 55, xxix
(SHONLE and WALDO)
1923-24, 58, 731
- Complement, muscles,
occurrence (LUNDS-
GAARD, HOLBØLL, and
GOTTSCHALK)
1926, 70, 79
- , properties (LUNDS-
GAARD, HOLBØLL, and
GOTTSCHALK)
1926, 70, 89
- Constitution, sulfur
lability, cystine deriva-
tives, relation (BRAND
and SANDBERG)
1926, 70, 381
- Diabetes, acidosis, alkaline
reserve, blood, effect
(CULLEN and JONAS)
1923, 57, 541
- , —, hydrogen ion con-
centration, blood, effect
(CULLEN and JONAS)
1923, 57, 541
- , blood sugar curves
(JONAS, MILLER, and
TELLER)
1925, 63, lv
- , phlorhizin, and. II
(NASH)
1925, 66, 869
- , —, effect (GAEBLER)
1925, 63, li
(GAEBLER and MURLIN)
1925, 66, 731
- , —, oral administration
influence (GAEBLER)
1925, 63, li
(GAEBLER and MURLIN)
1925, 66, 731

Insulin—continued:

- Enzyme, destructive action
(SHONLE and WALDO)
1925, 66, 467
- Fish (McCORMICK and
NOBLE)
1924, 59, xxix
- Fructose absorption, glyco-
gen formation, liver,
effect (CORI)
1926, 70, 577
- tolerance, effect (CORI
and CORI)
1927, 72, 597
- Galactose absorption,
glycogen formation,
liver, effect (CORI)
1926, 70, 577
- Glucose absorption, glyco-
gen formation, liver,
effect (CORI)
1926, 70, 577
- and, blood inorganic
phosphorus, effect
(KATAYAMA and KIL-
LIAN)
1926-27, 71, 707
- —, — lactic acid, *in vitro*
effect (KATAYAMA and
KILLIAN)
1926-27, 71, 707
- —, — sugar, effect
(KATAYAMA and KIL-
LIAN)
1926-27, 71, 707
- — liver tissue, *in vitro*,
action (LUNDSGAARD and
HOLBØLL)
1926, 68, 485
- — muscle tissue, *in vitro*,
effect (LUNDSGAARD and
HOLBØLL)
1924-25, 62, 453
- — — —, interaction
(BARBOUR)
1926, 67, 53

Insulin—continued:

- Glucose equivalent, pan-
createctomy (ALLAN)
1924, 59, xxviii
- , *in vitro*, effect (LUNDS-
GAARD and HOLBØLL)
1924-25, 62, 453
1926, 68, 485
(HARRIS, LASKER, and
RINGER)
1926, 69, 713
(LUNDSGAARD and HOL-
BØLL) 1926, 70, 71
- , liver tissue, *in vitro*, ac-
tion (LUNDSGAARD and
HOLBØLL)
1926, 68, 485
- inactivation (DU VIG-
NEAUD)
1927, 73, 275
- , intravenous, influence
(WIERZUCHOWSKI)
1926, 68, 631
- , muscle tissue and, *in
vitro*, influence (LUNDS-
GAARD and HOLBØLL)
1926, 70, 71
- oxidation, iodine, in
presence of (ALLES and
WINEGARDEN)
1923-24, 58, 225
- tolerance, effect (CORI
and CORI)
1927, 72, 597
- Glucose-fermenting action,
Bacillus coli, influence
(McGUIRE and FALK)
1924, 60, 489
- Glycogen formation, fruc-
tose absorption, effect
(CORI and CORI)
1927, 73, 555
- —, liver, fructose ab-
sorption, effect (CORI)
1926, 70, 577
- —, —, galactose absorp-
tion, effect (CORI)
1926, 70, 577

Insulin—continued:

- Glycogen formation, liver,
glucose absorption, effect
(CORI)
1926, 70, 577
- —, sugar oxidation,
glucose absorption, rela-
tion (CORI and CORI)
1926, 70, 557
- Hydrogen ion concentra-
tion, blood, diabetic
acidosis, effect (CULLEN
and JONAS)
1923, 57, 541
- Hypoglycemia absence
after intraperitoneal in-
jection (HOSKINS and
SNYDER)
1927, 75, 147
- , dihydroxyacetone effect
(CAMPBELL and HEP-
BURN)
1926, 68, 575
- , ketone bodies, urine
(COLLIP)
1923, 55, xxxviii
- Isolation, method (COL-
LIP) 1923, 55, xl
- Ketosis, diabetes, effect
(FRIEDEMANN, SOMO-
GYI, and WEBB)
1926, 67, xlv
- , effect (FRIEDEMANN,
SOMOGYI, and WEBB)
1926, 67, xlv
- — on action (SEVRING-
HAUS)
1926, 67, xliii
- Lactic acid, blood, influ-
ence (CORI)
1925, 63, liii, 253
- —, tissues, influence
(CORI)
1925, 63, liii, 253
- Levulose, intravenous, in-
fluence (WIERZUCHOW-
SKI) 1926, 68, 631

Insulin—continued:

-Like substance, clam tissue (COLLIP)

1923, 55, xxxix

Liver and, glucose, *in vitro*, action (LUNDGAARD and HOLBØLL)

1926, 68, 485

Muscle and, glucose, *in vitro*, effect (HARRIS, LASKER, and RINGER)

1926, 69, 713

— —, *in vitro*, glucose reducing values, effect (PAUL)

1926, 68, 425

— —, — —, glucose rotation values, effect (PAUL)

1926, 68, 425

— tissue and, glucose, *in vitro*, influence (LUNDGAARD and HOLBØLL)

1924-25, 62, 453

1926, 70, 71

Oral administration, phlorhizin diabetes (GAEBLER)

1925, 63, li

(GAEBLER and MURLIN)

1925, 66, 731

Oxygen saturation, hemoglobin, effect (OLMSTED and TAYLOR)

1924, 59, xxx

Pancreas, amount, domestic animals (FENGER and WILSON)

1924, 59, 83

Pancreatectomy, metabolism effect (CHAIKOFF, MACLEOD, and MARKOWITZ)

1925, 63, lxxi

Phlorhizin diabetes and (NASH)

1923-24, 58, 453

— —, influence (RINGER)

1923-24, 58, 483

Insulin—continued:

Phlorhizin glycosuria, and (COLWELL)

1924, 61, 289

Phosphorus metabolism, effect (BLATHERWICK, BELL, and HILL)

1924, 59, xxxv

1924, 61, 241

Physical behavior (PIPER, ALLEN, and MURLIN)

1923-24, 58, 321

Precipitation reactions (KIMBALL and MURLIN)

1923-24, 58, 337

Preparation (BEST and SCOTT)

1923, 57, 709

(SOMOGYI, DOISY, and SHAFFER)

1924, 59, xxxiii

1924, 60, 31

Properties (DOISY, SOMOGYI, and SHAFFER)

1923, 55, xxxi

(SOMOGYI, DOISY, and SHAFFER)

1924, 59, xxxiii

(SCOTT)

1925, 65, 601

Proteolytic enzymes, action on (WITZEMANN and LIVSHIS)

1923, 57, 425

Purification (PIPER, ALLEN, and MURLIN)

1924, 59, xxxii

(DOISY and WEBER)

1924, 59, xxxiv

Rabbit response, factors influencing (BLATHERWICK, LONG, BELL, MAXWELL, and HILL)

1924, 59, xxxvi

Reducing substances, cerebrospinal fluid, effect (KASAHARA and UETANI)

1924, 59, 433

Insulin—continued:

Respiratory exchange,
effect (CHAIKOFF and
MACLEOD)

1927, 73, 725

— —, fasting effect
(CHAIKOFF and MAC-
LEOD)

1927, 73, 725

— metabolism, effect
(BOOTHBY and WEISS)

1925, 63, p. 1

— quotient following
(HAWLEY and MURLIN)

1924, 59, xxxii

Sugar oxidation, fructose
absorption, effect (CORI
and CORI)

1927, 73, 555

— —, glycogen formation,
glucose absorption, re-
lation (CORI and CORI)

1926, 70, 557

Sulfur (DU VIGNEAUD)

1927, 75, 393

— lability, cystine deriva-
tives, constitution, rela-
tion (BRAND and SAND-
BERG)

1926, 70, 381

Thyroid gland relation to
effects (BODANSKY)

1925, 63, lxvi

Tissues (BEST, SMITH, and
SCOTT)

1924, 59, xxx

Trypsin action (SCOTT)

1925, 63, 641

Ultra-violet radiation,
destruction (BURGE and
WICKWIRE)

1927, 72, 827

Uric acid reagent, Folin-
Denis, behavior (DU VIG-
NEAUD)

1927, 74, xvii

Intarvin:

Diabetes, treatment
(HEFT, KAHN, and GIES)

1925, 63, lvii

Toxicity (HEFT, KAHN,
and GIES)

1925, 63, lvii

Intestine:

Bacteria, toxic amines,
formation (HANK and
KOESSLER)

1924, 59, 835

Calcium absorption (BER-
GEIM)

1926, 67, lv

— —, small and large

(BERGEIM)

1926, 70, 51

—, antirachitic vitamin

effect (YODER)

1927, 74, 321

— salts absorption, solu-
bility relation (IRVING)

1926, 68, 513

Chemistry. I (BERGEIM)

1924-25, 62, 45

II (BERGEIM)

1924-25, 62, 49

IV (BERGEIM)

1926, 70, 29

V (BERGEIM)

1926, 70, 35

VI (BERGEIM)

1926, 70, 47

VII (BERGEIM)

1926, 70, 51

Colloids, organic, absorp-
tion (MACALLUM)

1924, 59, xvii

Hexose absorption (CORI)

1925, 66, 691

Histamine absorption,
mammalian organism
(KOESSLER and HANK)

1924, 59, 889

— detoxication, mammal-
ian organism (KOESSLER
and HANK)

1924, 59, 889

Intestine—continued:

Hydrogen ion concentration, antirachitic vitamin effect (YODER)

1927, 74, 321

— — —, contents (OKADA and ARAI)

1922, 51, 135

Intoxication, chemical studies. I (GERARD)

1922, 52, 111

Microorganism, histamine production, laboratory media (HANKER and KOESSLER)

1924, 59, 855

—, phenol production, laboratory media (HANKER and KOESSLER)

1924, 59, 855

—, tyramine production, laboratory media (HANKER and KOESSLER)

1924, 59, 855

Mucosa, glucose changes after contact (HUME and DENIS)

1924, 59, 457

Obstructed, histamine in (GERARD)

1922, 52, 111

Obstruction, electrolyte distribution (ATCHLEY and BENEDICT)

1927, 75, 697

Pentose absorption (CORI)

1925, 66, 691

Phosphorus absorption (BERGEIM)

1926, 67, lv

— —, small and large (BERGEIM)

1926, 70, 51

—, antirachitic vitamin effect (YODER)

1927, 74, 321

Intestine—continued:

Putrefaction, reduction as measure of (BERGEIM)

1924-25, 62, 49

Reductions, determination (BERGEIM)

1924-25, 62, 45

—, diet influence (BERGEIM)

1924-25, 62, 49

Sodium benzoate absorption (GRIFFITH)

1924, 59, li

— hippurate absorption (GRIFFITH)

1924, 59, li

— *r*-lactate excretion (ABRAMSON and EGGLETON)

1927, 75, 745

Intoxication:

Hydrazine, blood non-protein nitrogen, changes (LEWIS and IZUME)

1926-27, 71, 33

—, glycine metabolism, effect (LEWIS and IZUME)

1926-27, 71, 33

Intestinal, chemical studies. I (GERARD)

1922, 52, 111

Proteose, bile salt metabolism effect (SMYTH and WHIPPLE)

1924, 59, 637

Roentgen ray, bile salt metabolism effect (SMYTH and WHIPPLE)

1924, 59, 637

Water, mechanism (UNDERHILL and SALLICK)

1925, 63, 61

Inulin:

Determination (CAMPBELL and HANNA)

1926, 69, 703

Inulin—continued:

Glycogen formation, effect
(BODEY, LEWIS, and
HUBER)

1927, 75, 715

Preparation, artichoke
(WILLAMAN)

1922, 51, 275

Invertase:

Action, kinetics (NELSON
and LARSON)

1927, 73, 223

—, uniformity (NELSON
and HOLLANDER)

1923–24, 58, 291

III (NELSON and KERR)

1924, 59, 495

Fructose, retardation
(NELSON and ANDER-
SON)

1926, 69, 443

Glucose, retardation (NEL-
SON and ANDERSON)

1926, 69, 443

Honey (NELSON and
COHN)

1924, 61, 193

—, sucrose hydrolysis,
fructose influence (NEL-
SON and SOTTERY)

1924–25, 62, 139

—, —, glucose influence
(NELSON and SOTTERY)

1924–25, 62, 139

Stability (NELSON and
KERR)

1924, 59, 495

Sucrose hydrolysis, α -
methylglucoside pres-
ence. I (NELSON and
FREEMAN)

1925, 63, 365

II (NELSON and POST)

1926, 68, 265

Iodates:

Determination, gaso-
metric, micro (VAN
SLYKE, HILLER, and
BERTHELSEN)

1927, 74, 659

Iodine:

Determination, drink
(McCLENDON)

1924, 60, 289

—, excreta (McCLENDON)

1924, 60, 289

—, food (McCLENDON)

1924, 60, 289

Fructose determination
(CAJORI)

1922, 54, 617

Glucose determination
(CAJORI)

1922, 54, 617

— oxidation, in insulin
presence (ALLES and
WINEGARDEN)

1923–24, 58, 225

Goiter, natural waters,
relation (McCLENDON)

1923, 55, xvi

Maltose determination
(CAJORI)

1922, 54, 617

Sucrose determination
(CAJORI)

1922, 54, 617

Thyroid gland, distribu-
tion. IV (VAN DYKE)

1922, 54, 11

— —, hyperplastic, distri-
bution, iodine injection
effect (VAN DYKE)

1922, 54, 11

Waters, natural, goiter
relation (McCLENDON)

1923, 55, xvi

Ion:

Activation, plant enzymes
(DOBY and HIBBARD)

1927, 73, 405

Iron—continued:

Nutrient, plant (DOBY and HIBBARD)

1927, 73, 405

Ionization:

Nucleic acid derivatives, optical rotation, effect (LEVENE, SIMMS, and BASS)

1926, 70, 243

Optical rotation, effect.

II (LEVENE, BASS, STEIGER, and BENCO-WITZ)

1927, 72, 815

III (LEVENE and BASS)

1927, 74, 727

—, 2, 5-anhydro sugar acids, relations (LEVENE and BASS)

1927, 74, 727

Pyrimidine, pyrimidine nucleoside structure, relation (LEVENE, BASS, and SIMMS)

1926, 70, 229

Iron:

Anemia, nutritional, relation (MITCHELL and SCHMIDT)

1926, 70, 471

Assimilation, vitamin E relation (SIMMONDS, BECKER, and MCCOLLUM)

1927, 74, lxviii

Determination, biological materials (ELVEHJEM and HART)

1926, 67, 43

—, colorimetric, blood (WONG)

1923, 55, 421

—, electrometric, blood (KING and HOWARD)

1927, 75, 27

—, tissues (KENNEDY)

1927, 74, 385

Iron—continued:

Ferrous salts, oxidation, intermediate peroxides (SHAFFER)

1927, 74, xlv

Inorganic, hemoglobin building, utilization, nutritional anemia (HART, STEENBOCK, ELVEHJEM, and WADDELL)

1925, 65, 67

—, nutritional anemia, relation (MITCHELL and VAUGHN)

1927, 74, lxxviii

1927, 75, 123

Meat (FORBES and SWIFT)

1926, 67, 517

Milk, diet effect (ELVEHJEM, HERRIN, and HART)

1926–27, 71, 255

Nutrition. I (HART, STEENBOCK, ELVEHJEM, and WADDELL)

1925, 65, 67

II (ELVEHJEM and HART)

1926, 67, 43

III (ELVEHJEM, HERRIN, and HART)

1926–27, 71, 255

IV (HART, ELVEHJEM, WADDELL, and HERRIN)

1927, 72, 299

Tissues, animal (ELVEHJEM and PETERSON)

1927, 74, 433

—, determination (KENNEDY)

1927, 74, 385

Iron salts:

Catalytic action, mechanism. I (BAUDISCH and WELO)

1924, 61, 261

Complex, catalytic oxidation (BAUDISCH and DAVIDSON)

1926–27, 71, 501

Iron salts—continued:

- Soluble, nutritional
anemia, corrective
(HART, ELVEHJEM,
WADDELL, and HERRIN)
1927, 72, 299

Irradiation:

- Air, rickets prevention
(HUGHES, NITCHER,
and TITUS)
1925, 63, 205
- Animal, antirachitic prop-
erty of milk (STEEN-
BOCK, HART, HOPPERT,
and BLACK)
1925, 66, 441
- Cholesterol, absorption
spectra (HESS and
WEINSTOCK)
1925, 64, 193
- , antirachitic potency,
fractions (KRAMER,
SHEAR, and SHELLING)
1926-27, 71, 221
- , — value. I (HESS,
WEINSTOCK, and HEL-
MAN) 1925, 63, 305
- II (HESS and WEIN-
STOCK)
1925, 64, 181
- III (HESS and WEIN-
STOCK)
1925, 64, 193
- IV (HESS, WEINSTOCK,
and SHERMAN)
1925, 66, 145
- V (HESS, WEINSTOCK,
and SHERMAN)
1926, 67, 413
- VI (HESS, WEINSTOCK,
and SHERMAN)
1926, 70, 123
- VII (HESS and SHER-
MAN) 1927, 73, 145
- VIII (HESS and ANDER-
SON) 1927, 74, 651

Irradiation—continued:

- Cholesterol, biological ac-
tivity, change (HESS and
WEINSTOCK)
1925, 64, 181
- , calcium balance, effect
(HESS and SHERMAN)
1927, 73, 145
- , fractionation. I
(SHEAR and KRAMER)
1926-27, 71, 213
- II (KRAMER, SHEAR, and
SHELLING)
1926-27, 71, 221
- , —, chemical observa-
tions (SHEAR and
KRAMER)
1926-27, 71, 213
- oxidation products, in-
fluence (SCHLUTZ, ZIEG-
LER, and MORSE)
1927, 73, 209
- , phosphorus balance,
effect (HESS and SHER-
MAN) 1927, 73, 145
- Direct, growth-promoting
property (GOLDBLATT
and MORITZ)
1926-27, 71, 127
- Fat, growth-promoting
property (GOLDBLATT
and MORITZ)
1926-27, 71, 127
- Gamma ray, cholesterol
(REINHARD and BUCH-
WALD) 1927, 73, 383
- Milk, antirachitic property
(STEENBOCK, HART,
HOPPERT, and BLACK)
1925, 66, 441
- , dry, antirachitic proper-
ties (SUPPLEE and Dow)
1927, 73, 617
- , —, calcifying properties
(SUPPLEE and Dow)
1927, 73, 617

Irradiation—continued:

Milk, vitamin A potency
(SUPPLEE and DOW)

1927, 75, 227

Phytosterol, absorption
spectra (HESS and
WEINSTOCK)

1925, 64, 193

—, antirachitic value. I
(HESS, WEINSTOCK, and
HELMAN)

1925, 63, 305

II (HESS and WEIN-
STOCK)

1925, 64, 181

III (HESS and WEIN-
STOCK)

1925, 64, 193

IV (HESS, WEINSTOCK,
and SHERMAN)

1925, 66, 145

V (HESS, WEINSTOCK,
and SHERMAN)

1926, 67, 413

VII (HESS and SHER-
MAN)

1927, 73, 145

VIII (HESS and ANDER-
SON)

1927, 74, 651

—, biological activity,
change (HESS and WEIN-
STOCK)

1925, 64, 181

Rachitic diet, bone ash
(DUTCHER, CREIGHTON,
and ROTHROCK)

1925, 66, 401

—, inorganic blood
phosphorus (DUTCHER,
CREIGHTON, and ROTH-
ROCK)

1925, 66, 401

Roentgen ray, cholesterol
(REINHARD and BUCH-
WALD)

1927, 73, 383

Irradiation—continued:

Ultra-violet, antirachitic
activation (HESS and
WEINSTOCK)

1925, 63, xxv

—, — properties, inert
substances (HESS and
WEINSTOCK)

1925, 63, 297

—, — variations (STEEN-
BOCK, HART, RIISING,
and HOPPERT)

1927, 74, lxxiii

—, blood serum calcium
(MORITZ)

1925, 64, 81

—, green vegetables, anti-
rachitic properties (HESS
and WEINSTOCK)

1924-25, 62, 301

—, growth-promoting
properties (NELSON and
STEENBOCK)

1924-25, 62, 575

—, hay, antirachitic prop-
erties (STEENBOCK,
HART, ELVEHJEM, and
KLETZIEN)

1925, 66, 425

—, inert fluids, antirachitic
properties (HESS and
WEINSTOCK)

1924-25, 62, 301

—, insulin destruction
(BURGE and WICKWIRE)

1927, 72, 827

—, sterol fractions acti-
vated by (HESS and
ANDERSON)

1927, 74, 651

—, sugar metabolism
decrease (BURGE and
WICKWIRE)

1927, 72, 827

Isaacs:

Blood chlorides, determination, colorimetric, modification (DUPRAY)
1923-24, 58, 675

Isobarbituric acid:

Oxidation (DAVIDSON and BAUDISCH)
1925, 64, 619

Isoelectric point:

Calculation (LEVENE and SIMMS)
1923, 55, 801

Digestibility, relation (HERTZMAN and BRADLEY)
1924, 61, 275

Protein digestibility and (HERTZMAN and BRADLEY)
1924, 59, xix

Isoquercitrin:

Maize (SANDO and BARTLETT)
1922, 54, 629

Isostrophanthidin:

(JACOBS and GUSTUS)
1927, 74, 811

Derivatives (JACOBS and GUSTUS)
1927, 74, 811

Isomerization (JACOBS and COLLINS)
1924, 61, 387

(JACOBS and GUSTUS)
1927, 74, 829

Oxidation (JACOBS and COLLINS)
1924, 61, 387

Jack bean:

See Bean.

Jaffe:

Creatinine reaction, chemistry (GREENWALD)
1924, 59, xlvii

(GREENWALD and GROSS)
1924, 59, 601

Jaundice:

Obstructive, bile components, elimination (BRAKEFIELD and SCHMIDT)
1926, 67, 523

—, —, —, synthesis (BRAKEFIELD and SCHMIDT)
1926, 67, 523

See also Icterus.

Jendrassik:

Vitamin B, reaction (LEVINE)
1925, 64, 591

Water-soluble B, reaction (LEVINE)
1924-25, 62, 157

(BEZSSONOFF)
1925, 64, 589

Ketogenesis:

Antiketogenesis. IV

(SHAFFER)
1922, 54, 399

V (SHAFFER and FRIEDEMANN)
1924, 61, 585

—, acetoacetic ester, condensation products, oxidation, relation (WEST)
1925, 66, 63

—, — ester-glucose condensation compounds, relation (WEST)
1927, 74, xlii, 561

—, glucose action (SIMPSON)
1923, 55, xxiv

—, theory (WEST)
1926, 67, xlii

Pregnancy, threshold (HARDING, ALLIN, EAGLES, and VAN WYCK)
1925, 63, xlix

Threshold (WILDER and WINTER)
1922, 52, 393

Ketogenic:

- Diet, children, blood acetone bodies, effect (McQUARRIE and KEITH) 1927, 74, xvi
- , —, urine acetone bodies, effect (McQUARRIE and KEITH) 1927, 74, xvi

Ketogenic-antiketogenic balance:

- Diabetes, significance (SHAFFER) 1922, 54, 399

Ketolytic reaction:

- (SHAFFER and FRIEDEMANN) 1924, 61, 585

Ketones:

- Acidosis, experimental, occurrence (COLLIP) 1923, 55, xxxviii
- Aldehydes and, crossed dismutation. I (GORDON) 1927, 75, 163
- Excretion, fasted, depancreatized dogs (CHAIKOFF) 1927, 74, 203
- Urine, hypoglycemia following insulin, occurrence (COLLIP) 1923, 55, xxxviii

Ketonuria:

- Fasting, carbohydrate metabolism, relation (CORI and CORI) 1927, 72, 615

Ketopiperazine:

- Alkali action on (LEVENE and PFALTZ) 1926, 70, 219
- Optical rotation, ionization effect (LEVENE, BASS, STEIGER, and BENCO-WITZ) 1927, 72, 815

Ketosis:

- Diabetes (RICHARDSON and LADD) 1923-24, 58, 931
- , glucose effect (FRIEDEMANN, SOMOGYI, and WEBB) 1926, 67, xlv
- , insulin effect (FRIEDEMANN, SOMOGYI, and WEBB) 1926, 67, xlv
- mellitus, alkali therapy (MOSENTHAL and KILLIAN) 1923, 55, xliii
- , phlorhizin (WIERZUCHOWSKI) 1927, 73, 417
- Glucose effect (FRIEDEMANN, SOMOGYI, and WEBB) 1926, 67, xlv
- Infection and ketogenic balance (RICHARDSON and LEVINE) 1925, 63, 465
- Insulin action, effect (SEVINGHAUS) 1926, 67, xliii
- effect (FRIEDEMANN, SOMOGYI, and WEBB) 1926, 67, xlv
- Pregnancy (HARDING and ALLIN) 1926, 69, 133
- Rat (SMITH and LEVINE) 1926, 67, vi
- (LEVINE and SMITH) 1927, 75, 1

Kidney:

- Acid excess in diet, effect (ADDIS, MACKAY, and MACKAY) 1926-27, 71, 157

Kidney—continued:

- Acid excretion by, sodium hippurate injection effect (HENDRIX and SANDERS) 1923-24, 58, 503
- — —, — phosphate injection effect (HENDRIX and SANDERS) 1923-24, 58, 503
- Alkali excess in diet, effect (ADDIS, MACKAY, and MACKAY) 1926-27, 71, 157
- Beef, protein, nutrition value (MITCHELL and BEADLES) 1926-27, 71, 429
- Blood plasma bicarbonate ion, influence (MURRAY and HASTINGS) 1925, 65, 265
- — carbon dioxide, influence (MURRAY and HASTINGS) 1925, 65, 265
- — carbonate ion, influence (MURRAY and HASTINGS) 1925, 65, 265
- — hydrogen ion, influence (MURRAY and HASTINGS) 1925, 65, 265
- Cystine excess in diet, effect (ADDIS, MACKAY, and MACKAY) 1926-27, 71, 139
- Diabetes, renal, glucose excreted in, optical activity and reducing power, relation (MAGERS and GIBSON) 1927, 75, 299
- Disease, blood plasma calcium (RABINOWITCH) 1924-25, 62, 667

Kidney—continued:

- Disease, blood plasma magnesium (RABINOWITCH) 1924-25, 62, 667
- , — — potassium (RABINOWITCH) 1924-25, 62, 667
- , — — sodium (RABINOWITCH) 1924-25, 62, 667
- Efficiency, urea tests. I (RABINOWITCH) 1925, 65, 617
- Food elements, excess, effect. I (ADDIS, MACKAY, and MACKAY) 1926-27, 71, 139
- II (ADDIS, MACKAY, and MACKAY) 1926-27, 71, 157
- Function, benzoate test (KINGSBURY) 1923, 55, xxi
- , blood, non-protein sulfur compounds, influence (DENIS and REED) 1927, 73, 41
- Glycosuria, carbohydrate utilization (LADD and RICHARDSON) 1925, 63, 681
- Integrity, sugar excretion, relation (UNDERHILL and WILENS) 1923-24, 58, 153
- Phlorhizin action, nephrectomized dogs (DEUEL, MILHORAT, and SWEET) 1927, 74, xl
- diabetes (NASH) 1922, 51, 171
- Protein excess in diet, effect (ADDIS, MACKAY, and MACKAY) 1926-27, 71, 139

Kidney—continued:

Protein-high diet, effect
(JACKSON and RIGGS)
1926, 67, 101

Selective action, inorganic
salts, excretion (DENIS)
1923, 55, 171

Sodium *r*-lactate excretion
(ABRAMSON and EGGLE-
TON) 1927, 75, 745

Sugar excretion, relation
to integrity (UNDERHILL
and WILENS)
1923-24, 58, 153

Urea tests, efficiency. I
(RABINOWITCH)
1925, 65, 617

Kjeldahl:

Microgasometric nitrogen
determination (VAN
SLYKE)
1926-27, 71, 235

Kjeldahl-Gunning:

Nitrogen determinations,
amines in distillate
(GORTNER and HOFF-
MAN) 1926, 70, 457

Kombe:

Strophanthin, crystalline
(JACOBS)
1923, 57, 569

(JACOBS and HOFFMANN)
1926, 67, 609

Strophanthin- β (JACOBS
and HOFFMANN)
1926, 69, 153

Strophanthins (JACOBS and
HOFFMANN)
1926, 69, 153

Kramer-Tisdall:

Calcium determination,
blood serum (TISDALL)
1923, 56, 439

Lactalbumin:

Hydrolysate, tryptophane
preparation (WATER-
MAN) 1923, 56, 75

Nutritive value (OSBORNE
and MENDEL)
1924, 59, 339

Lactation:

Blood, women, effect
(MACY, outhouse,
LONG, BROWN, HUN-
SCHER, and HOOBLER)
1927, 74, xxxi

Calcium assimilation, cod
liver oil influence (HART,
STEENBOCK, KLETZIEN,
and SCOTT)

1926-27, 71, 271

— balance, light effect
(HART, STEENBOCK, and
ELVEHJEM)

1924-25, 62, 117

Fats, unsaturated, animal,
influence (CLAYTON)

1927, 74, lxxiv

Food influence (SHERMAN
and MUHLFELD)

1922, 53, 41

Fruit oils, rôle (SURE)
1926, 69, 29

Phosphorus balance, light
effect (HART, STEEN-
BOCK, and ELVEHJEM)

1924-25, 62, 117

-Promoting factor, wheat
oil, unsaponifiable mat-
ter (SURE)

1926, 69, 53

Vegetable oils, rôle (SURE)
1926, 69, 29

Vitamin B requirement
(SURE) 1927, 74, 55

— E rôle (SURE)
1926, 67, xlix

See also Milk.

Lactic acid :

Acidosis, ether anesthesia,
rôle (RONZONI, KOECHIG,
and EATON)

1924, 61, 465

Bacteria, pure and mixed
cultures, production
(PEDERSON, PETERSON,
and FRED)

1926, 68, 151

Blood, acid-base equilib-
rium changes, relation
(HIMWICH, LOEBEL, and
BARR)

1924, 59, 265

—, determination (RON-
ZONI and WALLEN-LAW-
RENCE)

1927, 74, 363

—, epinephrine influence
(CORI)

1925, 63, liii, 253

—, glucose effect (KATA-
YAMA and KILLIAN)

1926-27, 71, 707

—, insulin and glucose,
effect (KATAYAMA and
KILLIAN)

1926-27, 71, 707

—, — effect (CORI)

1925, 63, liii

(BEST and RIDOUT)

1925, 63, 197

(CORI) 1925, 63, 253

(KATAYAMA and KIL-
LIAN)

1926-27, 71, 707

—, tumor passage effect
(CORI and CORI)

1925, 65, 397

Cerebrospinal fluid
(GLASER)

1926, 69, 539

Determination (CLAUSEN)

1922, 52, 263

(FRIEDEMANN, COTONIO,
and SHAFFER)

1927, 73, 335

Lactic acid—continued:

Determination, blood
(RONZONI and WALLEN-
LAWRENCE)

1927, 74, 363

—, condenser unit (DAVEN-
PORT and COTONIO)

1927, 73, 359

Dextro-, dextro-methyl-
ethyl carbinol, configu-
rational relationship
(LEVENE, WALTI, and
HALLER)

1926-27, 71, 465

Excretion, urine, exercise
effect (LILJESTRAND
and WILSON)

1925, 65, 773

Formation after hemor-
rhage (RIEGEL)

1927, 74, 123

—, depancreatized dog
(WEBER, BRIGGS, and
DOISY)

1925, 66, 653

—, diabetes (DOISY,
BRIGGS, WEBER, and
KOECHIG)

1925, 63, xlviii

—, muscle extract (DAVEN-
PORT and COTONIO)

1927, 73, 463

—, phlorhizin diabetes
(LOEBEL, BARR, TOL-
STOI, and HIMWICH)

1924, 61, 9

2-Hydroxybutyric acid,
configurational relation-
ships (LEVENE and HAL-
LER)

1927, 74, 343

(CLOUGH)

1927, 75, 489

Propylene glycol, conver-
sion to (LEVENE and
HALLER)

1926, 67, 329

Lactic acid—continued:

Thio-, optical rotation
(LEVENE and MIKESKA)
1924, 60, 1

Tissues, epinephrine influence (CORI)

1925, 63, liii, 253

—, insulin influence (CORI)
1925, 63, liii, 253

Tumors, malignant (CORI and CORI)

1925, 64, 11

Lactobionic acid:

Lactone formation
(LEVENE and SOBOTKA)

1926-27, 71, 471

— —, lactose structure,
relation (LEVENE and
SOBOTKA)

1926-27, 71, 471

Lactone:

Cardiac aglucones, double
bond association
(JACOBS, HOFFMANN,
and GUSTUS)

1926, 70, 1

Formation, dicarboxylic
sugar acids (LEVENE and
SIMMS)

1925, 65, 31

—, gluconic acids (LEVENE
and SIMMS)

1926, 68, 737

—, lactobionic acid (LE-
VENE and SOBOTKA)

1926-27, 71, 471

—, — —, lactose structure,
relation (LEVENE and
SOBOTKA)

1926-27, 71, 471

—, maltobionic acid
(LEVENE and SOBOTKA)

1926-27, 71, 471

—, — —, maltose struc-
ture, relation (LEVENE
and SOBOTKA)

1926-27, 71, 471

Lactone—continued:

Formation, monocarbox-
ylic sugar acids (LE-
VENE and SIMMS)

1925, 65, 31

Galactoarabonic acid for-
mation by, lactose struc-
ture, relation (LEVENE
and WINTERSTEINER)

1927, 75, 315

Melibionie acid formation
by, melibiose structure,
relation (LEVENE and
WINTERSTEINER)

1927, 75, 315

4-Methylglucoheptonic
(LEVENE and MEYER)

1924, 60, 173

Tetramethylmannono-,
isomeric (LEVENE and
MEYER)

1924, 60, 167

Lactose:

Determination, blood
(HASKINS)

1926, 67, lx

—, urine (HASKINS)

1926, 67, lx

Fermentation, propionic
acid (SHERMAN and
SHAW)

1923, 56, 695

Metabolism. I (CORLEY)

1927, 74, 1

II (CORLEY)

1927, 74, 19

Structure, lactone forma-
tion of galactoarabonic
acid, relation (LEVENE
and WINTERSTEINER)

1927, 75, 315

—, — —, relation (LEVENE
and SOBOTKA)

1926-27, 71, 471

Urine, determination (HAS-
KINS)

1926, 67, lx

Lard:

Vitamin A (MALLON and CLARK)

1922, 54, 763

Larva:

Activity, honey bee, body fluids, buffer value changes (BISHOP)

1923-24, 58, 543

—, —, — fluids, carbon dioxide capacity changes (BISHOP)

1923-24, 58, 543

—, —, — fluids, hydrogen ion concentration changes (BISHOP)

1923-24, 58, 543

—, —, — fluids, osmotic pressure changes (BISHOP)

1923-24, 58, 543

—, —, — fluids, oxygen capacity changes (BISHOP)

1923-24, 58, 543

—, —, — fluids, specific gravity changes (BISHOP)

1923-24, 58, 543

ee, honey, blood (BISHOP, BRIGGS, and RONZONI)

1925, 66, 77

—, —, —, osmotic effects (BISHOP, BRIGGS, and RONZONI)

1925, 66, 77

—, —, body fluid. I (BISHOP)

1923-24, 58, 543

—, —, — fluids. II (BISHOP, BRIGGS, and RONZONI)

1925, 66, 77

Lead:

II (MINOT)

1923, 55, 1

Lead—continued:

VIII (FAIRHALL)

1923, 57, 455

IX (FAIRHALL)

1924, 60, 481

XI (FAIRHALL)

1924, 60, 485

Biological material, determination, electrolytic (MINOT)

1923, 55, 1

Colloidal, compounds, intravenous injection, fate (BISCHOFF, BLATHERWICK, and HILL)

1927, 74, lxxix

—, production (STENSTRÖM and REINHARD)

1926, 69, 607

Compounds, blood serum, solubility (FAIRHALL)

1924, 60, 481

Detection, microchemical (FAIRHALL)

1923, 57, 455

Determination, electrolytic, biological material (MINOT)

1923, 55, 1

—, urine (FAIRHALL)

1924, 60, 485

Leaf:

Cell, protoplasm extraction (CHIBNALL)

1923, 55, 333

—, vacuole extraction (CHIBNALL)

1923, 55, 333

Lecithin:

Blood, determination (RANDLES and KNUDSON)

1922, 53, 53

—, —, colorimetric (DE TONI)

1926, 70, 207

—, inherited anemia, new born mice (DE ABERLE, HOSKINS, and BODANSKY)

1927, 72, 643

Lecithin—continued:

- Brain, unsaturated fatty acids (LEVENE and ROLF) 1922, 54, 99
- Bromo-. I (LEVENE and ROLF) 1925, 65, 545
- II (LEVENE and ROLF) 1926, 67, 659
- , egg yolk (LEVENE and ROLF) 1926, 67, 659
- , liver (LEVENE and ROLF) 1926, 67, 659
- Collodion membranes, water diffusion (ABRAMSON and GRAY) 1927, 73, 459
- Corpus luteum, fatty acids (HART and HEYL) 1927, 72, 395
- Determination, blood (RANDLES and KNUDSON) 1922, 53, 53
- , colorimetric, blood (DE TONI) 1926, 70, 207
- Egg, unsaturated fatty acids (LEVENE and ROLF) 1922, 51, 507
- Liver, unsaturated fatty acids (LEVENE and SIMMS) 1922, 51, 285
- Lyso- (LEVENE and ROLF) 1923, 55, 743
- II (LEVENE, ROLF, and SIMMS) 1923-24, 58, 859
- , isolation (LEVENE, ROLF, and SIMMS) 1923-24, 58, 859
- , properties (LEVENE, ROLF, and SIMMS) 1923-24, 58, 859
- Preparation (LEVENE and ROLF) 1927, 72, 587

Lecithin—continued:

- Purification (LEVENE and ROLF) 1927, 72, 587
- Soy bean (LEVENE and ROLF) 1924-25, 62, 759
- —, brominated, fractionation (LEVENE and ROLF) 1926, 68, 285
- —, brominated, fractionation (LEVENE and ROLF) 1925, 65, 545
- Synthesis, animal organism (ECKSTEIN) 1924-25, 62, 743
- Synthetic (LEVENE and ROLF) 1924, 60, 677

Leg weakness:

- Chickens (HART, HALPIN, and STEENBOCK) 1922, 52, 379
- Chicks, rickets, mammalian, relation (PAPPENHEIMER and DUNN) 1925, 66, 717
- , — relation (HUGHES and TITUS) 1926, 69, 289
- Clover relation (BETHKE, KENNARD, and KIK) 1925, 63, 377
- Sunlight relation (BETHKE, KENNARD, and KIK) 1925, 63, 377

Lemon:

- Juice, antiscorbutic factor, solubilities (VEDDER and LAWSON) 1927, 73, 215

Lens esculenta:

See Lentil.

Lentil;

- Lens esculenta*, cystine deficiency (JONES and MURPHY) 1924, 59, 243

Lentil—continued:

Lens esculenta, vitamin
(JONES and MURPHY)

1924, 59, 243

Leptinotarsa decemlineata:

Lymph, carotene, color
cause of *Perillus bioculatus* (PALMER and
KNIGHT)

1924, 59, 443

Perillus bioculatus, color
relation (PALMER and
KNIGHT)

1924, 59, 443

Lettuce:

Vitamin A (DYE, MED-
LOCK, and CRIST)

1927, 74, 95

Leucemia:

Blood, glycolysis (SCHMITZ
and GLOVER)

1927, 74, 761

Myelogenous, metabolism,
amino acid nitrogen,
blood, relation (SANDI-
FORD, BOOTHBY, and
GIFFIN)

1923, 55, xxiii

***l*-Leucic acid:**

Formation, acetone-butyl
alcohol fermentation
(SCHMIDT, PETERSON,
and FRED)

1924, 61, 163

Levulose:

Insulin influence (WIER-
ZUCHOWSKI)

1926, 68, 631

Tolerance, liver injury,
hydrazine influence
(BODANSKY)

1923-24, 58, 799

See also Fructose.

Liesegang's rings:

(McGUIGAN and BROUGH)

1923-24, 58, 415

Light:

Antirachitic activation
(STEENBOCK, BLACK,
NELSON, NELSON, and
HOPPERT)

1925, 63, xxv

Basal metabolism, effect
(EICHELBERGER)

1926, 69, 17

Calcium balance, lactating
animals, effect (HART,
STEENBOCK, and ELVE-
HJEM)

1924-25, 62, 117

Creatine excretion, effect
(EICHELBERGER)

1926, 69, 17

Creatinine excretion, effect
(EICHELBERGER)

1926, 69, 17

Fats, unsaponifiable con-
stituents, calcifying
properties, exposure
effect (STEENBOCK and
BLACK)

1925, 64, 263

—, —, growth-promot-
ing properties, exposure
effect (STEENBOCK and
BLACK)

1925, 64, 263

Growth relation (STEEN-
BOCK and NELSON)

1923, 56, 355

(HART, STEENBOCK,
LEPKOVSKY, and HAL-
PIN)

1923-24, 58, 33

Ophthalmia relation
(STEENBOCK and NEL-
SON)

1923, 56, 355

Phosphorus balance, lac-
tating animals, effect
(HART, STEENBOCK, and
ELVEHJEM)

1924-25, 62, 117

Light—continued:

- Radiations curative of rickets, glass screens transmitting (LUCE) 1926-27, 71, 187
- Ultra-violet, calcium metabolism, milking cows, influence (HART, STEENBOCK, SCOTT, and HUMPHREY) 1927, 73, 59
- , egg fertility, influence (HART, STEENBOCK, LEPKOVSKY, KLETZIEN, HALPIN, and JOHNSON) 1925, 65, 579
- , — hatchability, influence (HART, STEENBOCK, LEPKOVSKY, KLETZIEN, HALPIN, and JOHNSON) 1925, 65, 579
- , — production, influence (HART, STEENBOCK, LEPKOVSKY, KLETZIEN, HALPIN, and JOHNSON) 1925, 65, 579
- , excessive calcium ingestion and, calcium of tissues, effect (DENIS and CORLEY) 1925, 66, 609
- , growth-promoting properties induced by (NELSON and STEENBOCK) 1924-25, 62, 575
- , hens exposed to, anti-rachitic vitamin, eggs, relation (HUGHES, PAYNE, TITUS, and MOORE) 1925, 66, 595
- , irradiation, hays, anti-rachitic properties (STEENBOCK, HART, ELVEHJEM, and KLETZIEN) 1925, 66, 425

Light—continued:

- Ultra-violet, phosphorus metabolism, milking cows, influence (HART, STEENBOCK, SCOTT, and HUMPHREY) 1927, 73, 59
- , purified rations, anti-rachitic properties (DUTCHER and KRUGER) 1926, 69, 277
- , ration exposed to, calcifying properties (STEENBOCK and BLACK) 1924, 61, 405
- , — — —, growth-promoting properties (STEENBOCK and BLACK) 1924, 61, 405
- , rickets prevention (HUGHES, NITCHER, and TITUS) 1925, 63, 205
- , transmission, glass substitute (RUSSELL and MASSENGALE) 1927, 74, lxxvi
- Uric acid, Folin-Wu method, effect (ROGERS) 1923, 55, 325
- Vitamin A formation, plant tissues, influence (COWARD) 1927, 72, 781
- Lignoceric acid:** (LEVENE, TAYLOR, and HALLER) 1924, 61, 157
- Lima bean:** *See* Bean.
- Limulus:** Amebocytes, urease extraction from (LOEB and BODANSKY) 1927, 72, 415
- Urease, blood cells (LOEB and BODANSKY) 1926, 67, 79

Limulus—continued:

Urease, blood plasma (LOEB
and BODANSKY)

1926, 67, 79

—, tissues (LOEB and
BODANSKY)

1926, 67, 79

Line test:

Diet and (McCOLLUM,
SIMMONDS, BECKER, and
SHIPLEY)

1926, 70, 437

Vitamin D studies
(McCOLLUM, SIMMONDS,
BECKER, and SHIPLEY)

1925, 65, 97

Lipase:

II (HYDE and LEWIS)

1923, 56, 7

III (McGINTY and LEWIS)

1926, 67, 567

Action, beef tissues
(FALK, NOYES, and
SUGIURA)

1924, 59, 213

—, Flexner-Jobling car-
cinoma (FALK, NOYES,
and SUGIURA)

1924, 59, 183

—, rabbit tissues (NOYES
and FALK)

1924-25, 62, 687

—, rat tissue (FALK,
NOYES, and SUGIURA)

1924, 59, 183

—, tissues (FALK, NOYES,
and SUGIURA)

1924-25, 62, 697

Liver, dicarboxylic acid
ester hydrolysis, com-
parison (HYDE and
LEWIS)

1923, 56, 7

—, — acids, esters,
hydrolysis (McGINTY
and LEWIS)

1926, 67, 567

Lipase—continued:

Papain (SANDBERG and
BRAND)

1925, 64, 59

Lipid:

Blood, diabetes (BLOOR,
GILLETTE, and JAMES)

1927, 75, 61

—, menstruation (OKEY
and BOYDEN)

1927, 72, 261

Excretion. III (SPERRY)

1926, 68, 357

IV (SPERRY)

1926-27, 71, 351

—, lipid-free diet (SPERRY)

1926, 67, xxviii

Fecal (SPERRY)

1926, 68, 357

—, bile, relation (SPERRY)

1926-27, 71, 351

—, —, —, and sterol meta-
bolism (SPERRY)

1926-27, 71, 351

-Free diet, lipid excretion
(SPERRY)

1926, 67, xxviii

Lipoid(s):

Acetone extract, corpus
luteum (HART and
HEYL)

1925, 66, 639

Antirachitic properties
(KOCH, CAHAN, and
GUSTAVSON)

1926, 67, lii

Blood, pregnancy influence
(TYLER and UNDERHILL)

1925, 66, 1

—, tuberculosis (HENNING)

1922, 53, 167

— plasma, anemia (BLOOR)

1925, 63, 1

Corpus luteum, ether
extract (HART and
HEYL)

1926, 70, 663

Lipoid(s)—continued:

Fecal, quantitative relations (SPERRY and BLOOR)

1924, 60, 261

Fractions, tubercle bacilli, separation (ANDERSON)

1927, 74, 525

New (LEVENE and LANDSTEINER)

1927, 75, 607

Phosphoric acid, blood, determination, Bell-Doisy method (RANDLES and KNUDSON)

1922, 53, 53

Phosphorus, blood (BAUMANN and HOLLY)

1923, 55, 457

—, —, determination (WHITEHORN)

1924-25, 62, 133

(ROE) 1926, 67, xv

—, —, suprarenalectomy effect (BAUMANN and HOLLY)

1923, 55, 457

—, — plasma, determination (WHITEHORN)

1924-25, 62, 133

—, determination, blood (WHITEHORN)

1924-25, 62, 133

(ROE) 1926, 67, xv

—, —, — plasma (WHITEHORN)

1924-25, 62, 133

Pollen, corn, White Flint (ANDERSON)

1923, 55, 611

Suprarenal gland, infection influence (BAUMANN and HOLLY)

1925, 63, lxiii

— physiology, relation. I (BAUMANN and HOLLY)

1923, 55, 457

Lipoid(s)—continued:

Tubercle bacillus (ANDERSON) 1927, 74, lxvi

Lipolytic action:

Tissue extracts, hydrogen ion concentration variation effect (NOYES, SUGIURA, and FALK)

1923, 55, 653

Tumor extracts, hydrogen ion concentration variation effect (NOYES, SUGIURA, and FALK)

1923, 55, 653

Liquor folliculi:

Hormone, properties (RALLS, JORDAN, HEUSINKVELD, and DOISY) 1926, 67, v

Liver:

Amylase, blood sugar regulation, rôle (DAVENPORT) 1926, 70, 625

Anemia, pernicious. I (COHN, MINOT, FULTON, ULRICH, SARGENT, WEARE, and MURPHY)

1927, 74, lxix

Antipressor fraction (JAMES, LAUGHTON, and MACALLUM)

1926, 67, vi

Antiscorbutic substance, scorbutic diet effect (CARRICK and HAUGE)

1925, 63, 115

Autolysis, acids formed in (SEVRINGHAUS)

1923, 57, 181

—, phosphoric acid liberation in (SEVRINGHAUS)

1923, 57, 191

Beef, protein, nutrition value (MITCHELL and BEADLES)

1926-27, 71, 429

Liver—continued:

Bromolecithins (LEVENE and ROLF)

1926, 67, 659

Cod, bile salt metabolism relation (SMYTH and WHIPPLE)

1924, 59, 647

Cystine (HUNTER and EAGLES)

1927, 72, 167

Glucose *in vitro*, action (LUNDSGAARD and HOLBØLL)

1926, 68, 485

Glycogen, fasted, depancreatized dogs (CHAIKOFF)

1927, 74, 203

— formation rate, fructose absorption (CORI)

1926, 70, 577

— — —, — absorption, insulin effect (CORI)

1926, 70, 577

— — —, galactose absorption (CORI)

1926, 70, 577

— — —, — absorption, insulin effect (CORI)

1926, 70, 577

— — —, glucose absorption (CORI)

1926, 70, 577

— — —, — absorption insulin effect (CORI)

1926, 70, 577

—, glucose transformation, *in vitro* (LUNDSGAARD and HOLBØLL)

1926, 68, 475

— synthesis, sodium γ -lactate effect (ABRAMSON, EGGLETON, and EGGLETON)

1927, 75, 763

Injury, hydrazine action (BODANSKY)

1923-24, 58, 799

Liver—continued:

Insulin and, glucose, *in vitro*, action (LUNDSGAARD and HOLBØLL)

1926, 68, 485

Lecithin, unsaturated fatty acids (LEVENE and SIMMS)

1922, 51, 285

Lipase, dicarboxylic acid ester hydrolysis, comparison (HYDE and LEWIS)

1923, 56, 7

(MCGINTY and LEWIS)

1926, 67, 567

Mollusks, Pacific coast, chemical study (ALBRECHT)

1923, 57, 789

Parathyroid tetany, rôle (BLUMENSTOCK and ICKSTADT)

1924, 61, 91

Vitamin B content, diet effect (OSBORNE and MENDEL)

1923-24, 58, 363

— C depletion on scorbutic ration (PARSONS and REYNOLDS)

1924, 59, 731

— — persistence in, on scorbutic ration (LEPKOVSKY and NELSON)

1924, 59, 91

Locust tree:

Bark, albumin, amino acids (JONES, GERSDORFF, and MOELLER)

1925, 64, 655

—, —, composition and properties (JONES, GERSDORFF, and MOELLER)

1925, 64, 655

—, —, nitrogen distribution (JONES, GERSDORFF, and MOELLER)

1925, 64, 655

Locust tree—continued:

Bark, proteins, enzymes
with (JONES, GERSDORFF,
and MOELLER)

1925, 64, 655

Robinia pseudacacia, bark,
proteins (JONES and
GERSDORFF)

1925, 63, xlv

I (JONES, GERSDORFF,
and MOELLER)

1925, 64, 655

Lungs:

Water elimination, sweat
gland absence, effect
(RICHARDSON)

1926, 67, 397

Lupinus albus:

Nitrogen, undetermined,
blood, toxicity relation
(LOONEY and MACHT)

1925, 63, lx

Lygæidæ:

See Hemiptera.

Lymph:

Blood and, interrelation-
ships (ARNOLD and
MENDEL)

1927, 72, 189

Inorganic constituents,
anaphylactic shock
(PETERSEN and HUGHES)

1925, 63, 179

Leptinotarsa decemlineata,
color cause of *Perillus*
bioculatus (PALMER and
KNIGHT)

1924, 59, 443

Mineral metabolism,
dextro-suprarenin injec-
tion effect (PETERSEN
and HUGHES)

1925, 66, 229

— —, levo-suprarenin in-
jection effect (PETERSEN
and HUGHES)

1925, 66, 229

Lymph—continued:

Mineral metabolism,
pilocarpine injection
effect (PETERSEN and
HUGHES)

1925, 66, 229

— —, pituitrin injection
effect (PETERSEN and
HUGHES)

1925, 66, 229

Uric acid distribution, uric
acid intravenous injec-
tion effect (CHRISTMAN
and ECKSTEIN)

1927, 75, 201

Lysine:

Precursors, lysine synthe-
sis, availability (LEWIS,
McGINTY, and MARVEL)

1924, 59, xiii

Synthesis, caproic acid
derivatives (McGINTY,
LEWIS, and MARVEL)

1924-25, 62, 75

—, lysine precursors,
availability (LEWIS,
McGINTY, and MARVEL)

1924, 59, xiii

Lysocephalin:

(LEVENE and ROLF)

1923, 55, 743

II (LEVENE, ROLF, and
SIMMS)

1923-24, 58, 859

Isolation (LEVENE, ROLF,
and SIMMS)

1923-24, 58, 859

Properties (LEVENE, ROLF,
and SIMMS)

1923-24, 58, 859

Lysolecithin:

(LEVENE and ROLF)

1923, 55, 743

II (LEVENE, ROLF, and
SIMMS)

1923-24, 58, 859

Lysolecithin—continued:

Isolation (LEVENE, ROLF,
and SIMMS)

1923-24, 58, 859

Properties (LEVENE, ROLF,
and SIMMS)

1923-24, 58, 859

M**Magnesium:**

Age effect, rats (MEDES
and HUMPHREY)

1927, 74, 149

Assimilation, butter fat in-
fluence (BOGERT and
TRAIL)

1922, 54, 753

—, yeast influence
(BOGERT and TRAIL)

1922, 54, 753

Blood cells and serum,
distribution between
(KRAMER and TISDALL)

1922, 53, 241

—, determination (DENIS)

1922, 52, 411

— plasma, determination
(DENIS)

1922, 52, 411

— —, renal disease
(RABINOWITZ)

1924-25, 62, 667

— serum and cells,
distribution between
(KRAMER and TISDALL)

1922, 53, 241

— —, determination
(DENIS)

1922, 52, 411

— —, fetus (BOGERT and
PLASS)

1923, 56, 297

— —, maternal (BOGERT
and PLASS)

1923, 56, 297

Magnesium—continued:

Bone, determination
(KRAMER and HOW-
LAND)

1926, 68, 711

—, growth (HAMMETT)

1925, 64, 685

—, —, parathyroid gland
rôle (HAMMETT)

1927, 72, 527

—, —, thyroid gland rôle
(HAMMETT)

1927, 72, 527

Calcium and, metabolism
(BOGERT and McKIT-
TRICK)

1922, 54, 363

Determination, animal
substances (DIENES)

1924, 61, 77

—, blood (DENIS)

1922, 52, 411

—, — plasma (DENIS)

1922, 52, 411

—, — serum (DENIS)

1922, 52, 411

—, bone (KRAMER and
HOWLAND)

1926, 68, 711

—, colorimetric (HAM-
METT and ADAMS)

1922, 52, 211

(BRIGGS)

1922, 52, 349

(HAMMETT and ADAMS)

1922, 54, 565

Excretion, calcium chloride
and sodium phosphate
injection effect (GREEN-
WALD and GROSS)

1925, 66, 201

—, — — injection effect
(GREENWALD and
GROSS)

1925, 66, 201

Magnesium—continued:

Excretion, parathyroid extract effect (GREENWALD and GROSS)

1925, 66, 217

—, sodium phosphate injection effect (GREENWALD and GROSS)

1925, 66, 201

—, thyroparathyroidectomy effect (GREENWALD and GROSS)

1925, 66, 185

Femur ash, parathyroidectomy effect (HAMMETT)

1923, 57, 285

—, thyroparathyroidectomy effect (HAMMETT)

1923, 57, 285

Humerus ash, parathyroidectomy effect (HAMMETT)

1923, 57, 285

—, thyroparathyroidectomy effect (HAMMETT)

1923, 57, 285

Metabolism (MEDES)

1926, 67, xxxii

—, calcium and (BOGERT and MCKITTRICK)

1922, 54, 363

—, purified diets (MEDES)

1926, 68, 295

Retention, orange juice effect, children (CHANEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

Yeast nucleic acid, compound (BAUMANN)

1924, 61, 1

Magnesium perchlorate trihydrate:

Water absorption, gravimetric metabolism determination (LEE and BROWN)

1927, 73, 69

Maintenance:

Potassium requirement (MILLER)

1926, 70, 587

Maintenance value:

Proteins, bread and milk (ROSE and MACLEOD)

1925, 66, 847

—, eggs (MITCHELL and CARMAN)

1924, 60, 613

—, meat (ROSE and MACLEOD)

1925, 66, 847

—, milk (ROSE and MACLEOD)

1925, 66, 847

—, pork (MITCHELL and CARMAN)

1924, 60, 613

—, soy bean curd (ROSE and MACLEOD)

1925, 66, 847

—, whole wheat (MITCHELL and CARMAN)

1924, 60, 613

Maize:

Isoquercitrin (SANDO and BARTLETT)

1922, 54, 629

Pigments, Mendelian color types (SANDO and BARTLETT)

1922, 54, 629

See also Corn.

Maleic acid:

Muscle tissue action on (DAKIN)

1922, 52, 183

Malic acid:

Inactive, resolution into optically active forms (DAKIN)

1924, 59, 7

Muscle tissue action on (DAKIN)

1922, 52, 183

***l*-Malic acid:**

Formation, alcoholic
fermentation, yeast
(DAKIN)

1924, 61, 139

Malt:

Amylase, heat destruction
(COOK)

1925, 65, 135

Maltobionic acid:

Lactone formation
(LEVENE and SOBOTKA)

1926-27, 71, 471

— —, maltose structure,
relation (LEVENE and
SOBOTKA)

1926-27, 71, 471

Maltose:

Determination, iodine in
(CAJORI)

1922, 54, 617

Structure, lactone forma-
tion, relation (LEVENE
and SOBOTKA)

1926-27, 71, 471

Mammary gland:

Tryptophane, blood, utili-
zation by (CARY)

1926, 67, xl

Manganese:

Animal materials (LINDOW
and PETERSON)

1927, 75, 169

Growth effect (LEVINE and
SOHM)

1924, 59, xlviii

Plant materials (LINDOW
and PETERSON)

1927, 75, 169

Mannitol:

-Forming bacteria, fermenta-
tion products (STILES,
PETERSON, and FRED)

1925, 64, 643

Mannonic acid:

2, 5-Anhydro-, optical
behavior (LEVENE)

1924, 59, 135

Mannonolactone:

Tetramethyl-, isomeric
(LEVENE and MEYER)

1924, 60, 167

Mannose:

Methyl diacetone, isomeric
(LEVENE and MEYER)

1924, 59, 145

Preparation (CLARK)

1922, 51, 1

 α -Mannose:

Preparation (LEVENE)

1923, 57, 329

II (LEVENE)

1924, 59, 129

***d*-Mannose:**

(LEVENE and MEYER)

1927, 74, 695

Pentamethyl-, dimethyl
acetals (LEVENE and
MEYER)

1927, 74, 695

Mannose pentacetate:

Optical rotation, con-
centration influence

(LEVENE and BENCO-
WITZ)

1927, 73, 679

— —, solvent influence
(LEVENE and BENCO-
WITZ)

1927, 73, 679

 α -Mannose pentacetate:

(LEVENE)

1924, 59, 141

(LEVENE and BENCOWITZ)

1927, 72, 627

Rotatory dispersion
(LEVENE and BENCO-
WITZ)

1927, 74, 153

 β -Mannose pentacetate:

Rotatory dispersion
(LEVENE and BENCO-
WITZ)

1927, 74, 153

Margaric acid:

Esters, utilization (SEV-
RINGHAUS)

1924, 59, xlix

Measurements:

Accuracy obtained by repetition (KROGH)
1927, 74, 393

Meat:

Connective tissue, determination (MITCHELL, ZIMMERMAN, and HAMILTON)

1926-27, 71, 379

— —, protein value in nutrition (MITCHELL, BEADLES, and KRUGER)
1927, 73, 767

Extract, bile salt metabolism, relation (SMYTH and WHIPPLE)

1924, 59, 647

Iron (FORBES and SWIFT)
1926, 67, 517

Protein, maintenance value (ROSE and MACLEOD)

1925, 66, 847

Medium F:

(EDDY, HEFT, and STEVENSON)
1922, 51, 83

Melibionie acid:

Lactone formation of, melibiose structure, relation (LEVENE and WINTERSTEINER)

1927, 75, 315

Melibiose:

Structure, lactone formation of melibionie acid, relation (LEVENE and WINTERSTEINER)

1927, 75, 315

Membrane:

Collodion, calibration. I (LUNDGAARD and HOLBØLL)
1926, 68, 439

—, high permeability (NELSON and MORGAN)
1923-24, 58, 305

Membrane—continued:

Collodion, standardization.

I (LUNDGAARD and HOLBØLL)

1926, 68, 439

—, water diffusion (ADOLPH)

1925, 64, 339

Lecithin-collodion, water diffusion (ABRAMSON and GRAY)

1927, 73, 459

Nitrocellulose, permeability (PIERCE)

1927, 75, 795

Menstruation:

Basal metabolism (WAKEHAM)

1923, 56, 555

Blood lipid (OKEY and BOYDEN)

1927, 72, 261

— sugar, fasting, relation (OKEY and ROBB)

1925, 65, 165

Sugar tolerance, relation (OKEY and ROBB)

1925, 65, 165

Mentha aquatica:

Volatile oil (KREMER)

1922, 52, 439

Mentha piperita:

Menthone-menthol relations (GORDON)

1927, 75, 163

Menthol:

Menthone-, relations, *Mentha piperita* (GORDON)

1927, 75, 163

Menthol glycuronic acid:

Determination, urine (QUICK)

1924, 61, 667

Synthesis (QUICK)

1924, 61, 679

Menthone:

- Benzaldehyde and, dismutation, menthone-menthol, *Mentha piperita*, significance (GORDON)
1927, 75, 163
- Menthol relations, *Mentha piperita* (GORDON)
1927, 75, 163

Mercaptans:

- Secondary, oxidation to corresponding sulfonic acids (LEVENE and MIKESKA)
1925, 65, 515
1927, 75, 587
- Sulfonic acids from oxidation of (LEVENE and MIKESKA)
1926, 70, 365

***d*-2-Mercaptobutane:**

- Oxidation to *d*-butane-2-sulfonic acid (LEVENE and MIKESKA)
1925, 63, 85

Mercuric chloride:

- Bile pigments, action (VON OETTINGEN and SOLL-MANN)
1927, 72, 635
- Poisoning, acute, blood changes (LOONEY)
1926, 70, 513

Metabolism:

- Acetaldehyde rôle, animal (BRIGGS)
1926-27, 71, 67
- Acid-base. I (SHOHL and SATO)
1923-24, 58, 235
- II (SHOHL and SATO)
1923-24, 58, 257
- Alkali, ether and morphine effect (STEHLE, BOURNE, and BARBOUR)
1922, 53, 341

Metabolism—continued:

- Alkali, ether anesthesia effect (STEHLE, BOURNE, and BARBOUR)
1922, 53, 341
- Amino acids (DAKIN)
1926, 67, 341
- —, protein split-products, effect (RAPPORT and BEARD)
1927, 73, 299
- Amytal anesthesia, insulin effect (CHAMBERS, DEUEL, and MILHORAT)
1927, 75, 423
- influence (DEUEL, CHAMBERS, and MILHORAT)
1926, 69, 249
- Anoxemia effect (SCHNELLER, BRUNQUIST, and LOEVENHART)
1923, 55, iii
- Arginine and histidine interchangeability in (ROSE and COX)
1926, 68, 217
- Aromatic acids, comparative. V (CERECEDO and SHERWIN)
1923-24, 58, 215
- VII (CERECEDO and SHERWIN)
1924-25, 62, 217
- VIII (MUENZEN, CERECEDO, and SHERWIN)
1926, 67, 469
- IX (NOVELLO, MIRIAM, and SHERWIN)
1926, 67, 555
- X (MUENZEN, CERECEDO, and SHERWIN)
1926, 68, 503
- XI (MIRIAM, WOLF, and SHERWIN)
1926-27, 71, 249

Metabolism—continued:

- Aromatic acids, comparative. XII (MIRIAM, WOLF, and SHERWIN) 1926-27, 71, 695
- amino acids, intermediary (SHAMBAUGH and LEWIS) 1926, 67, xxx
- Basal. *See* Basal metabolism.
- Base, fixed, fasting (GAMBLE, ROSS, and TISDALL) 1923, 57, 633
- Bile salt. *See* Bile salt.
- Calcium (MEDES) 1926, 67, xxxii
- , acid-forming diets, effect (BOGERT and KIRKPATRICK) 1922, 54, 375
- and magnesium, interrelation (BOGERT and MCKITTRICK) 1922, 54, 363
- , base-forming diets, effect (BOGERT and KIRKPATRICK) 1922, 54, 375
- , chaulmoogra oil influence (READ) 1924-25, 62, 515
- , childhood (SHERMAN and HAWLEY) 1922, 53, 375
- , cod liver oil influence (SJOELLEMA) 1923, 57, 255
- , crude fiber influence (SJOELLEMA) 1923, 57, 271
- , dairy cows (MEIGS and TURNER) 1925, 63, xxix

Metabolism—continued:

- Calcium, dairy cows. II (TURNER, HARDING, and HARTMAN) 1927, 74, xxvii
- , —, clover and alfalfa hay effect (TURNER, HARDING, and HARTMAN) 1927, 74, xxvii
- , milking cows, ultra-violet light influence (HART, STEENBOCK, SCOTT, and HUMPHREY) 1927, 73, 59
- , protein influence (SJOELLEMA) 1923, 57, 271
- , rickets, restricted food intakes (SHOHL and BENNETT) 1927, 74, 247
- , thyroparathyroidectomy, calcium salts administration effect (GREENWALD) 1926, 67, 1
- , —, sodium phosphate administration effect (GREENWALD) 1926, 67, 1
- , zinc metabolism, normal, relation (FAIRHALL) 1926, 70, 495
- Carbohydrate. III (NEUWIRTH) 1922, 51, 11
- I (FOSTER) 1923, 55, 291
- II (FOSTER) 1923, 55, 303
- XXI (UNDERHILL and WILENS) 1923-24, 58, 153
- II (LUNDGAARD and HOLBØLL) 1925, 65, 305

Metabolism—continued:

- Carbohydrate. III
(LUNDGAARD and HOLBØLL) 1925, 65, 323
IV (LUNDGAARD and HOLBØLL) 1925, 65, 343
V (LUNDGAARD and HOLBØLL) 1925, 65, 363
VI (LUNDGAARD and HOLBØLL) 1926, 68, 457
VII (LUNDGAARD and HOLBØLL) 1926, 68, 475
VIII (LUNDGAARD and HOLBØLL) 1926, 68, 485
IX (LUNDGAARD and HOLBØLL) 1926, 70, 71
X (LUNDGAARD, HOLBØLL, and GOTTSCHALK) 1926, 70, 79
XI (LUNDGAARD, HOLBØLL, and GOTTSCHALK) 1926, 70, 83
XII (LUNDGAARD, HOLBØLL, and GOTTSCHALK) 1926, 70, 89
—, adrenalectomy effect (CORI and CORI) 1927, 74, 473
—, blood phosphates, relation (BOLLIGER and HARTMAN) 1925, 63, lvi
1925, 64, 91
—, inorganic substances, participation (HARROP and BENEDICT) 1924, 59, 683
—, insulin effect (BLATHERWICK, BELL, and HILL) 1924, 59, xxxv
1924, 61, 241

Metabolism—continued:

- Carbohydrate, intermediary. I (WIERZUCHOWSKI) 1926, 68, 631
II (WIERZUCHOWSKI) 1927, 73, 417
III (WIERZUCHOWSKI) 1927, 73, 445
—, —, by insulin (VOEGTLIN, DUNN, and THOMPSON) 1924, 59, xxxvii
—, ketonuria, fasting, relation (CORI and CORI) 1927, 72, 615
—, pancreatotomy, pancreas extract, aqueous, influence (MURLIN, CLOUGH, GIBBS, and STOKES) 1923, 56, 253
—, tumors. I (CORI and CORI) 1925, 64, 11
II (CORI and CORI) 1925, 65, 397
Carbon dioxide determination in (LEE and BROWN) 1927, 73, 69
Cellular, putrefaction products, influence. II (HIJIKATA) 1922, 51, 141
Chaulmoogra oil. I (READ) 1924-25, 62, 515
II (READ) 1924-25, 62, 541
Children, calcium (SHERMAN and HAWLEY) 1922, 53, 375
—, energy, small breakfast effect (BAUER and BLUNT) 1924, 59, 77

Metabolism—continued:

- Children, phosphorus
(SHERMAN and HAWLEY)
1922, 53, 375
- , undernourished (WANG,
KERN, FRANK, and DUN-
WIDDIE)
1925, 63, lxi
- Cholesterol, spleen relation
(RANDLES and KNUD-
SON) 1926, 67, xvii
- , suprarenals, relation
(RANDLES and KNUD-
SON) 1926, 67, xvii
- Creatine (BENEDICT and
OSTERBERG)
1923, 56, 229
- IV (BEHRE and BENE-
DICT) 1922, 52, 11
- V (BENEDICT and OSTER-
BERG)
1923, 56, 229
- , arginine relation (ROSE
and COOK)
1925, 63, xvii
1925, 64, 325
- , histidine relation (ROSE
and COOK)
1925, 63, xvii
1925, 64, 325
- Creatinine. IV (BEHRE
and BENEDICT)
1922, 52, 11
- V (BENEDICT and OSTER-
BERG)
1923, 56, 229
- Cystine, cysteine rôle
(LEWIS and MCGINTY)
1922, 53, 349
- effect (LEWIS)
1925, 65, 187
- Diabetes (WILDER, BOOTH-
BY, and BEELER)
1922, 51, 311
- Dihydroxyacetone (CAMP-
BELL, FLETCHER, HEP-
BURN, and MARKOWITZ)
1926, 67, lvii

Metabolism—continued:

- Dihydroxyacetone (RABIN-
OWITCH)
1927, 75, 45
- , diabetes (RABINO-
WITCH)
1927, 75, 45
- Energy, children, small
breakfast effect (BAUER
and BLUNT)
1924, 59, 77
- Experiments, procedure
(COWGILL)
1923, 56, 725
- Fat, diabetes. I (BLOOR,
GILLETTE, and JAMES)
1927, 75, 61
- Fatty acids (DAKIN)
1926, 67, 341
- —, arachidonic acid
and saturated fatty
acids, relation (WESSON)
1925, 65, 235
- Galactose. I (ROWE)
1923, 55, vi
- III (ROWE)
1926, 67, xlviii
- Glycerol, phlorhizin dia-
betes (CHAMBERS and
DEUEL)
1925, 65, 21
- Glycine, hydrazine intoxi-
cation, effect (LEWIS and
IZUME)
1926–27, 71, 33
- Graphic determination
(MICHAELIS)
1924, 59, 51
- Histidine and arginine
interchangeability in
(ROSE and COX)
1926, 68, 217
- Hydantoic acids (GAEBLER
and KELTSCH)
1926, 70, 763
- Hydantoins (GAEBLER and
KELTSCH)
1926, 70, 763

Metabolism—continued:

Hydrazine and derivatives,
influence. II (LEWIS
and IZUME)

1926-27, 71, 33

III (IZUME and LEWIS)

1926-27, 71, 51

Imidazoles (LEITER)

1925, 64, 125

Inorganic. I (BOGERT and
McKITTRICK)

1922, 54, 363

II (BOGERT and KIRK-
PATRICK)

1922, 54, 375

III (BOGERT and TRAIL)

1922, 54, 387

IV (BOGERT and TRAIL)

1922, 54, 753

I (SJOLLEMA)

1923, 57, 255

II (SJOLLEMA)

1923, 57, 271

— salts. I (GROSS and
UNDERHILL)

1922, 54, 105

II (GROSS)

1923, 55, 729

IV (UNDERHILL and
DIMICK)

1923-24, 58, 133

V (UNDERHILL and
GROSS)

1923-24, 58, 141

— —, cocaine poisoning
(UNDERHILL and GROSS)

1923-24, 58, 141

Lactose. I (CORLEY)

1927, 74, 1

II (CORLEY)

1927, 74, 19

Magnesium (MEDES)

1926, 67, xxxii

— and calcium, interrela-
tion (BOGERT and
McKITTRICK)

1922, 54, 363

Metabolism—continued:

Magnesium, purified diets
(MEDES)

1926, 68, 295

Methane determination,
apparatus for (CARPEN-
TER and FOX)

1926, 70, 115

Milk diet, cats (PUCHER
and CORI)

1922, 54, 567

Mineral (SHOHL and SATO)

1923-24, 58, 257

—, infants, heat treatment
of milk, effect (DANIELS
and STEARNS)

1924, 61, 225

—, lymph, dextro-supra-
renin injection effect
(PETERSEN and HUGHES)

1925, 66, 229

—, —, levo-suprarenin in-
jection effect (PETERSEN
and HUGHES)

1925, 66, 229

—, —, pilocarpine in-
jection effect (PETERSEN
and HUGHES)

1925, 66, 229

—, —, pituitrin injection
effect (PETERSEN and
HUGHES)

1925, 66, 229

—, man (CLARK)

1925, 63, xxviii

—, milch cow (FORBES,
SCHULZ, HUNT, WINTER,
and REMLER)

1922, 52, 281

Myelogenous leukemia,
amino acid nitrogen,
blood, relation (SANDI-
FORD, BOOTHBY, and
GIFFIN)

1923, 55, xxiii

Metabolism—continued:

- Nitrogen, anoxemia effect
(BRUNQUIST, SCHNELLER,
and LOEVENHART)
1924-25, 62, 93
- , antimony subacute
poisoning (PŘIBYL)
1927, 74, 775
- , arsenic subacute
poisoning (PŘIBYL)
1927, 74, 775
- , chick embryo (FISKE
and BOYDEN)
1926, 70, 535
- , endogenous, minimum
(SMITH)
1926, 68, 15
- , indole influence
(UNDERHILL and KAP-
SINOW)
1922, 54, 717
- , low, diabetes, car-
bohydrate-low diet
(PETRÉN)
1924, 61, 355
- , puerperium (HARDING
and MONTGOMERY)
1927, 73, 27
- , skatole influence
(UNDERHILL and KAP-
SINOW)
1922, 54, 717
- , vitamin A deficiency
effect (MORGAN and OS-
BURN)
1925, 66, 573
- Nucleic acids, heat produc-
tion relation (RINGER
and RAPPORT)
1923-24, 58, 475
- Nuclein. I (JACKSON)
1923, 57, 121
- II (JACKSON)
1924, 59, 529
- Pancreatectomy, insulin
effect (CHAIKOFF, MAC-
LEOD, and MARKOWITZ)
1925, 63, lxxi

Metabolism—continued:

- Pentose. I (YOUNGBURG
and PUCHER)
1924, 61, 741
- (CORLEY)
1926, 70, 521
- II (YOUNGBURG)
1927, 73, 599
- Phenylalanine, intermedi-
ary (SHAMBAUGH and
LEWIS)
1926, 67, xxx
- Phosphate, anesthesia
effect (BOLLIGER)
1926, 67, lvi
- , — relation (BOLLIGER)
1926, 69, 721
- Phosphorus (MEDES)
1926, 67, xxxii
- , childhood (SHERMAN
and HAWLEY)
1922, 53, 375
- , cod liver oil influence
(SJOLLEMA)
1923, 57, 255
- , crude fiber influence
(SJOLLEMA)
1923, 57, 271
- , dairy cows (MEIGS and
TURNER)
1925, 63, xxix
- II (TURNER, HARDING,
and HARTMAN)
1927, 74, xxvii
- , —, clover and alfalfa
hay effect (TURNER,
HARDING, and HART-
MAN)
1927, 74, xxvii
- , insulin effect (BLATH-
ERWICK, BELL, and HILL)
1924, 59, xxxv
- 1924, 61, 241
- , milking cows, ultra-
violet light influence
(HART, STEENBOCK,
SCOTT, and HUMPHREY)
1927, 73, 59

Metabolism—continued:

Phosphorus, protein influence (SJOLLEMA)

1923, 57, 271

—, rickets, restricted food intakes (SHOHL and BENNETT) 1927, 74, 247

—, thyroparathyroidectomy, calcium salts administration effect (GREENWALD)

1926, 67, 1

—, —, sodium phosphate administration effect (GREENWALD)

1926, 67, 1

Polyneuritis, poultry (ANDERSON and KULP)

1922, 52, 69

Pregnancy. I (ROWE)

1923, 55, xxviii

II (ROWE, ALCOTT, and MORTIMER)

1924, 59, xli

Protein split-products effect. I (RAPPORT and BEARD)

1927, 73, 285

II (RAPPORT and BEARD)

1927, 73, 299

—, temperature effect (YOUNGBURG and FINCH)

1926, 68, 335

Purine. I (CHRISTMAN and ECKSTEIN)

1927, 75, 201

—, arginine relation (ROSE and COOK)

1925, 63, xvii

1925, 64, 325

—, histidine relation (ROSE and COOK)

1925, 63, xvii

1925, 64, 325

Metabolism—continued:

Pyrimidine (WILSON)

1923, 56, 215

(DEUEL)

1924, 60, 749

l-Pyroglutamic acid (BETHKE and STEENBOCK)

1923-24, 58, 105

Respiratory. *See* Respiratory metabolism.

Rickets, calcium-high, phosphorus-low diets (KARELITZ and SHOHL)

1927, 73, 655

Sterol, bile and fecal lipids, relation (SPERRY)

1926-27, 71, 351

Sugar, acidosis effect (KOEHLER)

1926, 67, xlv

—, amino acids, optical activity, relation

(BURGE, WICKWIRE, ESTES, and WILLIAMS)

1927, 74, 235

—, ultra-violet radiation, effect (BURGE and WICKWIRE)

1927, 72, 827

Sulfur (SHERWIN, SHIPLE, and ROSE)

1927, 73, 607

V (LEWIS and MCGINTY)

1922, 53, 349

VI (LEWIS, UPDEGRAFF, and MCGINTY)

1924, 59, 59

VII (HILL and LEWIS)

1924, 59, 557

VIII (HILL and LEWIS)

1924, 59, 569

IX (LEWIS)

1925, 65, 187

X (LEWIS and WILSON)

1926, 69, 125

Metabolism—continued:

Sulfur. XI (LEWIS and LEWIS)

1926, 69, 589

XII (LEWIS and LEWIS)

1927, 73, 535

XIII (LEWIS and LEWIS)

1927, 74, 515

—, cystine effect (LEWIS)

1925, 65, 187

Synthalin effect (BLATHERWICK, SAHYUN, and HILL)

1927, 75, 671

Temperature effect (YOUNGBURG and FINCH)

1926, 68, 335

Tryptophane. I (ROBSON)

1924-25, 62, 495

Uric acid. III (LEWIS and CORLEY)

1923, 55, 373

Urine pigment output, relationship (DRABKIN)

1927, 75, 443

Vitamin starvation, poultry (ANDERSON and KULP)

1922, 52, 69

Water determination in (LEE and BROWN)

1927, 73, 69

Women. I (OKEY and ROBB)

1925, 65, 165

II (OKEY and ERIKSON)

1926, 68, 687

III (OKEY and BOYDEN)

1927, 72, 261

Yeast. I (BALLS and BROWN)

1924-25, 62, 789

II (BROWN and BALLS)

1924-25, 62, 823

—, alcohol in (BROWN and BALLS)

1924-25, 62, 823

Metabolism—continued:

Yeast, carbon dioxide in (BROWN and BALLS)

1924-25, 62, 823

Zinc, normal, calcium metabolism, relation (FAIRHALL)

1926, 70, 495

Metallic salts:

Absorption, fish. II (THOMAS)

1923-24, 58, 671

Metamorphosis:

Autolysis and, insect (BISHOP)

1923-24, 58, 567

Bee, honey, body fluids, buffer value changes (BISHOP)

1923-24, 58, 543

—, —, —, carbon dioxide capacity changes (BISHOP)

1923-24, 58, 543

—, —, —, hydrogen ion concentration changes (BISHOP)

1923-24, 58, 543

—, —, —, osmotic pressure changes (BISHOP)

1923-24, 58, 543

—, —, —, oxygen capacity changes (BISHOP)

1923-24, 58, 543

—, —, —, specific gravity changes (BISHOP)

1923-24, 58, 543

Methane:

Determination, gas analysis apparatus, metabolism experiments (CARPENTER and FOX)

1926, 70, 115

Diazo-, xanthosine, action (LEVENE)

1923, 55, 437

Methane—continued:

Triphenyl-, fate, animal
body (MIRIAM, WOLF,
and SHERWIN)
1926-27, 71, 695

Methemoglobin:

(CONANT and FIESER)
1924-25, 62, 595

Determination (CONANT
and FIESER)
1924-25, 62, 623

—, gasometric (VAN
SLYKE)
1925, 66, 409

Formation (VAN SLYKE
and VOLLMUND)
1925, 66, 415

Oxygen (CONANT and
SCOTT)
1926, 69, 575

Solutions, bicarbonate ion,
activity coefficient
(STADIE and HAWES)
1927, 74, xxxi

Methoxyl:

-Containing compounds,
determination, Zeisel
modified procedure
(EATON and WEST)
1927, 75, 283

Methylation:

(NOVELLO, HARROW, and
SHERWIN)
1926, 67, liv

Methylene blue:

Biological reduction
(CLARK, COHEN, and
GIBBS)
1925, 63, liv

Methylethyl carbinol:

Dextro, dextro-lactic acid,
configurational relation-
ship (LEVENE, WALTY,
and HALLER)
1926-27, 71, 465

**Methylethyl carbinol—contin-
ued:**

Methylpropyl carbinol,
configurational relation-
ships (LEVENE, HALLER,
and WALTY)
1927, 72, 591

4-Methylglucoheptonic lactone:
(LEVENE and MEYER)
1924, 60, 173

Methylglucoside:

Methylated, monoacetone
glucose, prepared from
(LEVENE and MEYER)
1926, 70, 343

 α -Methylglucoside:

Sucrose hydrolysis, inver-
tase. I (NELSON and
FREEMAN)
1925, 63, 365
II (NELSON and POST)
1926, 68, 265

3-Methylglycuronic acid:

(LEVENE and MEYER)
1924, 60, 173

Methylguanidine:

Creatine from, muscle
(HAMMETT)
1923, 55, 323

 β -Methylhydantoin:

Destruction, body (GAEB-
LER)
1926, 67, lv

Methylpropyl carbinol:

Methylethyl carbinol, con-
figurational relationships
(LEVENE, HALLER, and
WALTY)
1927, 72, 591

Bz-3-Methyltryptophane:

Racemic, synthesis (ROB-
SON)
1924-25, 62, 495

Microchemical analysis:

Gravimetric, technique
(DIENES)
1924, 61, 73

Microorganism:

Fermentation, orange juice, vitamin C, effect (LEPKOVSKY, HART, HASTINGS, and FRAZIER) 1925, 66, 49

—, tomato juice, vitamin C, effect (LEPKOVSKY, HART, HASTINGS, and FRAZIER) 1925, 66, 49

Intestine, histamine production, laboratory media (HANKE and KOESSLER) 1924, 59, 855

—, phenol production, laboratory media (HANKE and KOESSLER) 1924, 59, 855

—, tyramine production, laboratory media (HANKE and KOESSLER) 1924, 59, 855

Milk:

Abnormal (SJOLLEMA and VAN DER ZANDE) 1922, 53, 513

Acidity, titratable, hydrogen ion concentration relation (SHARP and McINERNEY) 1927, 75, 177

Amino acids (HIJIKATA) 1922, 51, 165

Antirachitic property (STEENBOCK, HART, HOPPERT, and BLACK) 1925, 66, 441

—, animal irradiation effect (STEENBOCK, HART, HOPPERT, and BLACK) 1925, 66, 441

—, irradiation effect (STEENBOCK, HART, HOPPERT, and BLACK) 1925, 66, 441

Milk—continued:

Calcium balance, alfalfa effect, milking cows (HART, STEENBOCK, HOPPERT, and HUMPHREY) 1922, 53, 21

—, bone meal and green grasses, milking cows, effect (HART, STEENBOCK, HOPPERT, and HUMPHREY) 1923–24, 58, 43

—, calcium level and sunlight, milking cows, effect (HART, STEENBOCK, SCOTT, and HUMPHREY) 1926–27, 71, 263

—, —, milking cows, effect (HART, STEENBOCK, SCOTT, and HUMPHREY) 1926–27, 71, 263

—, — phosphate (bone meal) and timothy hay, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY) 1922, 54, 75

—, green grasses, milking cows, effect (HART, STEENBOCK, HOPPERT, and HUMPHREY) 1923–24, 58, 43

—, hay effect, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY) 1922, 54, 75

—, sunlight, milking cows, influence (HART, STEENBOCK, ELVEHJEM, SCOTT, and HUMPHREY) 1926, 67, 371

Milk—continued:

- Calcium compounds, solubility, heat effect (BELL) 1925, 64, 391
- determination (CORLEY and DENIS) 1925, 66, 601
- metabolism, ultra-violet light, milking cows, influence (HART, STEENBOCK, SCOTT, and HUMPHREY) 1927, 73, 59
- precipitation, direct (ROTHWELL) 1925, 65, 129
- — —, human (ROTHWELL) 1927, 75, 23
- Coagulating enzyme, *Solanum elaeagnifolium* (BODANSKY) 1924, 61, 365
- Coagulation, heat (LEIGHTON and MUDGE) 1923, 56, 53
- Copper in, human and cow (HESS, SUPPLEE, and BELLIS) 1923, 57, 725
- Curd, heat-coagulated, endothermic reaction (LEIGHTON and MUDGE) 1923, 56, 53
- Diet, blood, calf (HUFFMAN and ROBINSON) 1926, 69, 101
- , nutritional anemia (HART, ELVEHJEM, WADDELL, and HERRIN) 1927, 72, 299
- , — —, ash, plant and animal tissues as corrective (HART, ELVEHJEM, WADDELL, and HERRIN) 1927, 72, 299

Milk—continued:

- Diet, nutritional anemia, soluble iron salts as corrective (HART, ELVEHJEM, WADDELL, and HERRIN) 1927, 72, 299
- , vitamin E and reproduction (MATTELL and CLAYTON) 1926, 67, xlix
1926, 68, 665
- Dry, antirachitic properties, irradiated and non-irradiated, summer- and winter-produced (SUPPLEE and Dow) 1927, 73, 617
- , calcifying properties, irradiated and non-irradiated, summer- and winter-produced (SUPPLEE and Dow) 1927, 73, 617
- , reproductive potency, oxidation effect (SUPPLEE and Dow) 1925, 63, 103
- Evaporated and pasteurized, calcium source, comparison (WILLARD and BLUNT) 1927, 75, 251
- — —, nitrogen source, comparison (WILLARD and BLUNT) 1927, 75, 251
- — —, phosphorus source, comparison (WILLARD and BLUNT) 1927, 75, 251
- , stability during sterilization, alcohol test (BENTON and ALBERY) 1926, 68, 251

Milk—continued:

Evaporated, stability during sterilization, hydrogen ion concentration (BENTON and ALBERY)
1926, 68, 251

—, —, —, specific buffers (BENTON and ALBERY)
1926, 68, 251

—, vitamin A (DUTCHER, HONEYWELL, and DAHLE)
1927, 75, 85

—, — D (HONEYWELL, DUTCHER, and DAHLE)
1927, 74, lxxvii

Growth effect (SHERMAN and CROCKER)
1922, 53, 49

Heated, calcium compounds, solubility effect (BELL)
1925, 64, 391

—, mineral metabolism, infants (DANIELS and STEARNS)
1924, 61, 225

—, phosphorus compounds, solubility effect (BELL)
1925, 64, 391

HUMAN. I (MACY, OUTHOUSE, LONG, and GRAHAM)
1927, 73, 153

II (MACY, OUTHOUSE, GRAHAM, and LONG)
1927, 73, 175

III (MACY, OUTHOUSE, GRAHAM, and LONG)
1927, 73, 189

IV (OUTHOUSE, MACY, BREKKE, and GRAHAM)
1927, 73, 203

—, calcium precipitation, direct (ROTHWELL)
1927, 75, 23

Milk—continued:

Human, copper (HESS, SUPPLEE, and BELLIS)
1923, 57, 725

—, dried, feeding (SMITH)
1924, 61, 625

—, phosphatide (HESS and WEINSTOCK)
1925, 64, 781

—, phosphorus (LENSTRUP)
1926, 70, 193

—, —, total (HESS and WEINSTOCK)
1925, 64, 781

—, vitamin A (MACY, OUTHOUSE, LONG, and HOOBLE)
1926, 67, li

(MACY, OUTHOUSE, GRAHAM, and LONG)
1927, 73, 175

—, — B (MACY, OUTHOUSE, LONG, and HOOBLE)
1926, 67, li

(MACY, OUTHOUSE, GRAHAM, and LONG)
1927, 73, 189

Hydrogen ion concentration, acidity, titratable, relation (SHARP and McINERNEY)
1927, 75, 177

— — — determination, colorimetric (SHARP and McINERNEY)
1926, 70, 729

Iron, diet effect (ELVEHJEM, HERRIN, and HART)
1926-27, 71, 255

Irradiated, antirachitic property (STEENBOCK, HART, HOPPERT, and BLACK)
1925, 66, 441

Milk—continued:

Irradiated, vitamin A potency (SUPPLEE and DOW)

1927, 75, 227

Lactation effect, women (MACY, outhouse, LONG, BROWN, HUNSCHER, and HOOBLER)

1927, 74, xxxi

Metabolic disturbances, cats (PUCHER and CORI)

1922, 54, 567

Mineral deficiencies, fertility effect (DANIELS and HUTTON)

1925, 63, 143

— —, growth effect (DANIELS and HUTTON)

1925, 63, 143

— metabolism, milch cow (FORBES, SCHULZ, HUNT, WINTER, and REMLER)

1922, 52, 281

Nutrition improvement (SHERMAN and CAMPBELL)

1924, 60, 5

Nutritive properties. III (MATTELL, CARMAN, and CLAYTON)

1924, 61, 729

Pasteurized and evaporated, calcium source, comparison (WILLARD and BLUNT)

1927, 75, 251

— — —, nitrogen source, comparison (WILLARD and BLUNT)

1927, 75, 251

— — —, phosphorus source, comparison (WILLARD and BLUNT)

1927, 75, 251

Phosphatide, human and cow (HESS and HELMAN)

1925, 64, 781

Milk—continued:

Phosphorus balance, alfalfa effect, milking cows (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1922, 53, 21

— —, bone meal and green grasses, milking cows, effect (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1923-24, 58, 43

— —, calcium phosphate (bone meal) and timothy hay, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

— —, green grasses, milking cows, effect (HART, STEENBOCK, HOPPERT, and HUMPHREY)

1923-24, 58, 43

— —, hay effect, milking cows (HART, STEENBOCK, HOPPERT, BETHKE, and HUMPHREY)

1922, 54, 75

— compounds, solubility, heat effect (BELL)

1925, 64, 391

—, human and cow (LENSTRUP)

1926, 70, 193

— metabolism, ultra-violet light; milking cows, influence (HART, STEENBOCK, SCOTT, and HUMPHREY)

1927, 73, 59

—, total, human and cow (HESS and HELMAN)

1925, 64, 781

Milk—continued:

Powder, skimmed, reproduction-deficient diet (SURE)

1927, 74, 37

Protein, bread and, maintenance value (ROSE and MACLEOD)

1925, 66, 847

—, maintenance value (ROSE and MACLEOD)

1925, 66, 847

Proteins, reproduction value (SURE)

1923-24, 58, 681

Ration, fat-high, X substance, sterility prevention (MATTELL, CARMAN, and CLAYTON)

1924, 61, 729

—, sex glands, influence (MATTELL and CLAYTON)

1925, 63, xxvii

—, yeast addition, infertility, influence (MATTELL and CONGDON)

1924, 59, xii

Reproductive properties. II (MATTELL and STONE)

1923, 55, 443

Skimmed, powder, sterility effect (SURE)

1926, 69, 41

Sour, urine acidity effect (BLATHERWICK and LONG)

1922, 53, 103

Udder inflammation, aseptic, relation (SJOLLEMA and VAN DER ZANDE)

1922, 53, 513

Ultra-violet light, calcium metabolism, milking cows, influence (HART, STEENBOCK, SCOTT, and HUMPHREY)

1927, 73, 59

Milk—continued:

Ultra-violet light, phosphorus metabolism, milking cows, influence (HART, STEENBOCK, SCOTT, and HUMPHREY)

1927, 73, 59

Vitamin A (OUTHUSE, MACY, BREKKE, and GRAHAM)

1927, 73, 203

— B (OUTHUSE, MACY, BREKKE, and GRAHAM)

1927, 73, 203

— C, ration vitamin C, relation (HUGHES, FITCH, CAVE, and RIDDELL)

1926-27, 71, 309

Whole, nutritional anemia (HART, STEENBOCK, ELVEHJEM, and WADDELL)

1925, 65, 67

(HART, ELVEHJEM, WADDELL, and HERRIN)

1927, 72, 299

—, —, inorganic iron effect (HART, STEENBOCK, ELVEHJEM, and WADDELL)

1925, 65, 67

X substance (MATTELL and CLAYTON)

1925, 63, xxvii

See also Lactation.

Millet:

Fat-soluble vitamin (STEENBOCK, SELL, and JONES)

1923, 56, 345

Millon:

Phenol test (GIBBS)

1926-27, 71, 445

Mineral:

Metabolism (SHOHL and SATO)

1923-24, 58, 257

Mineral—continued:

Metabolism, infants, heat treatment of milk, effect (DANIELS and STEARNS)

1924, 61, 225

—, lymph, dextro-suprarenin effect (PETERSEN and HUGHES)

1925, 66, 229

—, —, levo-suprarenin effect (PETERSEN and HUGHES)

1925, 66, 229

—, —, pilocarpine effect (PETERSEN and HUGHES)

1925, 66, 229

—, —, pituitrin effect (PETERSEN and HUGHES)

1925, 66, 229

—, man (CLARK)

1925, 63, xxviii

—, milch cow (FORBES, SCHULZ, HUNT, WINTER, and REMLER)

1922, 52, 281

Milk, deficiency, fertility effect (DANIELS and HUTTON)

1925, 63, 143

—, —, growth effect (DANIELS and HUTTON)

1925, 63, 143

Skin content (BROWN)

1926, 68, 729

1927, 75, 789

Mineral elements:

Nutrition rôle (WOODS)

1925, 66, 57

Mineral matter:

Rat tissue (BUCKNER and PETER)

1922, 54, 5

Miridæ:

See Hemiptera.

Mold:

Fermentation of pentoses (PETERSON, FRED, and SCHMIDT)

1922, 54, 19

Molecular complexity:

Clostridium thermocellum, end-products, effect (PETERSON, FRED, and MARTEN)

1926, 70, 309

Molecular configuration:

See Chemical constitution.

Molecular dimension:

Albumin, crystalline, egg (DU NOÛY)

1925, 64, 595

Molecular weight:

Albumin, crystalline, egg (DU NOÛY)

1925, 64, 595

Determinations, Rast's micro method, modifications (SMITH and YOUNG)

1927, 75, 289

Proteins (COHN)

1925, 63, xv

(COHN, HENDRY, and PRENTISS)

1925, 63, 721

Mollusk:

Liver, Pacific coast, chemical study (ALBRECHT)

1923, 57, 789

Reproductive system, Pacific coast, chemical study (ALBRECHT)

1923, 56, 483

Molybdc method:

Phosphorus compounds, blood (ROE, IRISH, and BOYD)

1926, 67, 579

—, inorganic, blood serum (BENEDICT and THEIS)

1924, 61, 63

- Monoacetone benzylidene glucose:**
Preparation (LEVENE and MEYER) 1923, 57, 319
- Monoacetone galactose:**
(LEVENE and MEYER) 1925, 64, 473
- Monoacetone glucose:**
Methylglucosides, methylated, prepared from (LEVENE and MEYER) 1926, 70, 343
- Monocarboxylic sugar acids:**
Lactone formation (LEVENE and SIMMS) 1925, 65, 31
- Monosaccharides:**
Condensation (LEVENE and ULPTS) 1925, 64, 475
Diabetes, phlorhizin, elimination rate (DEUEL and CHAMBERS) 1925, 63, xxii
- Morphine:**
Determination (BALLS) 1926-27, 71, 543
Ether and, alkali metabolism effect (STEHLE, BOURNE, and BARBOUR) 1922, 53, 341
Pseudo- (BALLS) 1926-27, 71, 537
—, determination (BALLS) 1926-27, 71, 543
- Mucic acid:**
Nephropathic action (ROSE and DIMMITT) 1923, 55, xxvii
- Mucoprotein:**
Snail (LEVENE) 1925, 65, 683
- Mueller:**
Amino acid, pancreatic amylase activity, influence (CALDWELL) 1924, 59, 661
- Mung bean:**
See Bean.
- Muscle:**
Atrophy (CHEN, MEEK, and BRADLEY) 1924, 61, 807
Autolysis. X (CHEN and BRADLEY) 1924, 59, 151
Creatinine formation from creatine in (HAMMETT) 1924, 59, 347
Enzymes, creatine, effect (HAMMETT) 1922, 53, 323
—, creatinine, effect (HAMMETT) 1922, 53, 323
Exercise, lactic acid excretion, urine (LILJESTRAND and WILSON) 1925, 65, 773
—, physiology. I (BARR, HIMWICH, and GREEN) 1923, 55, 495
II (BARR and HIMWICH) 1923, 55, 525
III (BARR and HIMWICH) 1923, 55, 539
V (HIMWICH and BARR) 1923, 57, 363
—, urine, changes (WILSON, LONG, THOMPSON, and THURLOW) 1925, 65, 755
Extract, creatine. III (HAMMETT) 1922, 53, 323
IV (HAMMETT) 1923, 55, 323
V (HAMMETT) 1924, 59, 347
—, creatinine. III (HAMMETT) 1922, 53, 323
IV (HAMMETT) 1923, 55, 323

Muscle—continued:

Extract, creatinine. V
(HAMMETT)

1924, 59, 347

—, lactic acid formation
(DAVENPORT and COT-
ONIO)

1927, 73, 463

Fish, rigor mortis, changes
(BENSON)

1925, 63, lxxii

Fumaric acid, action
(DAKIN)

1922, 52, 183

Glucose and insulin, inter-
action (BARBOUR)

1926, 67, 53

— reducing values, effect
(PAUL)

1926, 68, 425

— rotation values, effect
(PAUL)

1926, 68, 425

Glucose-insulin solutions,
specific rotatory power,
in vitro (BEARD and
JERSEY)

1926, 70, 167

Glutaconic acid, action
(DAKIN)

1922, 52, 183

Glycogen, fasted, depan-
creatized dogs (CHAI-
KOFF)

1927, 74, 203

Glycolysis, blood, compari-
son (RONZONI)

1927, 74, xliii

Heart, beef, fatty acids,
unsaturated, distribu-
tion (BLOOR)

1926, 68, 33

Hydrogenases, frog, speci-
ficity (COLLETT)

1923-24, 58, 793

Insulin and, glucose effect
(LUNDGAARD and HOL-
BØLL)

1924-25, 62, 453

Muscle—continued:

Insulin and, glucose, *in
vitro*, effect (HARRIS,
LASKER, and RINGER)

1926, 69, 713

(LUNDGAARD and HOL-
BØLL)

1926, 70, 71

—, *in vitro*, glucose
reducing values, effect
(PAUL)

1926, 68, 425

—, —, —, glucose rota-
tion values, effect (PAUL)

1926, 68, 425

— complement, warm and
cold blooded animals
(LUNDGAARD, HOL-
BØLL, and GOTTSCHALK)

1926, 70, 79

Maleic acid, action
(DAKIN)

1922, 52, 183

Malic acid, action (DAKIN)

1922, 52, 183

Methylguanidine in, crea-
tine formation (HAM-
METT)

1923, 55, 323

Phosphate, inorganic
(FISKE and SUBBAROW)

1927, 74, xxii

Proteins (HOWE)

1924, 61, 493

—, soluble, differential
extraction (HOWE)

1924, 61, 493

—, —, —, precipitation
(HOWE)

1924, 61, 493

Rigidity, catatonia, para-
thyroid hormone control
(LOONEY)

1926, 67, xxxvii

Shrimp, amino acids
(JONES, MOELLER, and
GERSDORFF)

1925, 65, 59

Muscle—continued:

Shrimp, nitrogen distribution (JONES, MOELLER, and GERSDORFF)

1925, 65, 59

Uterine, extracts, ester-hydrolyzing actions, time change in (NOYES and FALK)

1927, 72, 475

Voluntary, beef, unsaturated fatty acids, distribution (BLOOR)

1927, 72, 327

Work, fuel (HENDERSON and HAGGARD)

1925, 63, lxix

See also Exercise, Work.

Mutarotation:

Chondrosamine hydrochlorides, isomeric, rates (LEVENE)

1923, 57, 337

β -Glucose (LUNDSGAARD and HOLBØLL)

1925, 65, 305

N**Narcosis:**

I (KRUSE)

1923, 56, 127

II (KRUSE)

1923, 56, 139

Ether, respiratory exchange, determination during (KRUSE)

1923, 56, 139

Urethane, glucose specific dynamic action, influence (GUTTMACHER and WEISS)

1927, 72, 283

—, glycocoll specific dynamic action, influence (GUTTMACHER and WEISS)

1927, 72, 283

Navy bean:

See Bean.

Nephritis:

Blood chlorides, introduction effect (UNDERHILL and WAKEMAN)

1922, 54, 701

—, chronic, terminal (HENDERSON, BOCK, DILL, HURKTHAL, and VAN CAULAERT)

1927, 75, 305

—, inorganic constituents (DENIS)

1923, 56, 473

— serum, inorganic constituents (DENIS and HOBSON)

1923, 55, 183

Imidazole excretion, urine (KOESSLER and HANKE)

1924, 59, 803

Parenchymatous (CLAUSEN)

1924, 59, xlv

Respiratory exchange, chronic, terminal (HENDERSON, BOCK, DILL, HURKTHAL, and VAN CAULAERT)

1927, 75, 305

Uranium, acidosis, acid excretion, relation (HENDRIX and BODANSKY)

1924, 60, 657

—, —, base excretion, relation (HENDRIX and BODANSKY)

1924, 60, 657

—, —, sugar excretion, relation (HENDRIX and BODANSKY)

1924, 60, 657

—, hyperglycemia, acid excretion, relation (HENDRIX and BODANSKY)

1924, 60, 657

Nephritis—continued:

Uranium, hyperglycemia,
base excretion, relation
(HENDRIX and BODAN-
SKY) 1924, 60, 657

—, —, sugar excretion,
relation (HENDRIX and
BODANSKY) 1924, 60, 657

See also Bright's disease.

Neuritis:

Antineuritic and water-
soluble B vitamins, iden-
tity (LEVENE and MUHL-
FELD)

1923, 57, 341

— vitamin, brewers' yeast,
preparation (SEIDELL)

1926, 67, 593

—, water-soluble, and
growth-promoting sub-
stances, differentiation
(HAUGE and CARRICK)

1926, 69, 403

—, — B, chlorophyll-
free plants (ORTON, Mc-
COLLUM, and SIMMONDS)

1922, 53, 1

—, —, glacial acetic acid
as solvent (LEVINE, Mc-
COLLUM, and SIMMONDS)

1922, 53, 7

Nickel:

Absorption by *Fundulus*
heterochitus (THOMAS)

1923-24, 58, 671

Nicotinic acid:

Yeast constituent (VICK-
ERY) 1926, 68, 585

Nitrate:

Nitrogen, determination,
plants (BURRELL and
PHILLIPS)

1925, 65, 229

Nitric oxide:

Solutions, bicarbonate ion,
activity coefficient
(STADIE and HAWES)
1927, 74, xxxi

Nitrobenzene:

Oxygen capacity, blood
pigment, administration
effect (STIMSON)
1927, 75, 741

Nitrocellulose:

Membranes, permeability
(PIERCE)
1927, 75, 795

Nitrogen:

Adsorption, hemoglobin
(CONANT and SCOTT)
1926, 68, 107

Albumin, locust bark,
distribution (JONES,
GERSDORFF, and
MOELLER)

1925, 64, 655

Alfalfa juice, nitrogenous
constituents. I (VICK-
ERY) 1924, 60, 647
II (VICKERY)

1924, 61, 117

III (VICKERY and
LEAVENWORTH)

1925, 63, 579

IV (VICKERY)
1925, 65, 81

V (VICKERY and VIN-
SON) 1925, 65, 91

VI (VICKERY)
1925, 65, 657

Amide, alfalfa juice (VICK-
ERY) 1924, 60, 647

Amino acid, alfalfa juice
(VICKERY)
1924, 60, 647

—, —, blood (OKADA and
HAYASHI)

1922, 51, 121

I (BLAU)
1923, 56, 861

Nitrogen—continued:

Amino acid, blood. II
(BLAU)

1923, 56, 867

III (BLAU)

1923, 56, 873

— — —, determination,
colorimetric (FOLIN)

1922, 51, 377

— — —, metabolism,
myelogenous leucemia,
relation (SANDIFORD,
BOOTHBY, and GIFFIN)

1923, 55, xxiii

— — —, total free (BLAU)

1923, 56, 861

— — —, determination,
colorimetric, blood
(FOLIN)

1922, 51, 377

— — —, normal urine
(FOLIN)

1922, 51, 393

— nitrogen, conversion of,
Van Slyke factors
(SHARP)

1924, 60, 77

Animal foods, biological
value (MITCHELL and
CARMAN)

1926, 68, 183

Balance, positive, creatin-
uria during growth, influ-
ence (HARDING and
GAEBLER)

1923, 57, 25

Basic, alfalfa juice (VICK-
ERY)

1924, 61, 117

Blood, alligator, distribu-
tion (HOPPING and
SCOTT)

1923, 55, xxxiii

—, undetermined, toxicity
to *Lupinus albus*, rela-
tion (LOONEY and
MAGHT)

1925, 63, lx

Nitrogen—continued:

Cauliflower bud. I
(McKEE and SMITH)

1926, 70, 273

Cellulose decomposition,
filamentous fungi, trans-
formation (HEUKEL-
KIAN and WAKSMAN)

1925, 66, 323

Determination, amines in
distillate (GORTNER and
HOFFMAN)

1926, 70, 457

—, gasometric micro-
Kjeldahl (VAN SLYKE)

1926-27, 71, 235

—, in carbon wet combus-
tion method (ANDERSON
and SCHUTTE)

1924, 61, 57

—, micro (ROSE)

1925, 64, 253

—, persulfate in (WONG)

1923, 55, 427, 431

—, protein (MAIN and
LOCKE)

1925, 64, 75

Dextrose-, ratio, fasted
depancreatized dogs
(CHAIKOFF)

1927, 74, 203

—, —, pancreatectomy,
pancreatic perfusate in-
fluence (CLOUGH,
STOKES, GIBBS, STONE,
and MURLIN)

1923, 55, xxx

Excretion (HUBBARD)

1923-24, 58, 711

—, minimal, thyroxine
effect, protein-free diet
(DEUEL, SANDIFORD,
SANDIFORD, and BOOTH-
BY)

1926, 67, xxiii

—, parathyroid extract
effect (GREENWALD and
GROSS)

1925, 66, 217

Nitrogen—continued:

- Flour, patent white mixtures, biological value (MITCHELL and CARMAN) 1926, 68, 183
- Globin, distribution (HUNTER and BORSOOK) 1923, 57, 507
- Metabolism, anoxemia effect (BRUNQUIST, SCHNELLER, and LOEVENHART) 1924-25, 62, 93
- , antimony subacute poisoning (PŘIBYL) 1927, 74, 775
- , arsenic subacute poisoning (PŘIBYL) 1927, 74, 775
- , chick embryo (FISKE and BOYDEN) 1926, 70, 535
- , endogenous, minimum (SMITH) 1926, 68, 15
- , indole influence (UNDERHILL and KAPSI-NOW) 1922, 54, 717
- , low, diabetes, carbohydrate-low diet (PETRÉN) 1924, 61, 355
- , puerperium (HARDING and MONTGOMERY) 1927, 73, 27
- , skatole influence (UNDERHILL and KAP-SINOW) 1922, 54, 717
- , vitamin A deficiency effect (MORGAN and OSBURN) 1925, 66, 573
- Milk, evaporated and pasteurized, as source, comparison (WILLARD and BLUNT) 1927, 75, 251

Nitrogen—continued:

- Muscle, shrimp, distribution (JONES, MOELLER, and GERSDORFF) 1925, 65, 59
- Nitrate, determination, plants (BURRELL and PHILLIPS) 1925, 65, 229
- Non-protein, blood filtrates, sodium oleate addition, effect (ROSENTHAL) 1926, 70, 129
- , —, pyloric obstruction (FELTY and MURRAY) 1923, 57, 573
- , determination, blood (BOCK and GILBERT) 1925, 63, xxxix
- , total, blood, cyclic variations, women (OKEY and ERIKSON) 1926, 68, 687
- Organic, compounds, water, lake (PETERSON, FRED, and DOMOGALLA) 1925, 63, xl, 287
- Partition, urine, hydno-carpates influence (READ) 1924-25, 62, 541
- Peptide, blood (BLAU) 1923, 56, 873
- , —, arterial hypertension (JACKSON, SHERWOOD, and MOORE) 1927, 74, 231
- Protamine, distribution, sardine (DUNN) 1926, 70, 697
- Protein, determination (MAIN and LOCKE) 1925, 64, 75
- , sodium hydroxide-extracted, coconut, distribution (FRIEDEMANN) 1922, 51, 17

Nitrogen—continued:

Protein, sodium hydroxide-extracted, cottonseed meal, distribution (FRIEDEMANN)

1922, 51, 17

—, —, soy bean, distribution (FRIEDEMANN)

1922, 51, 17

—, tubercle bacillus, distribution (JOHNSON and COGHILL)

1925, 63, 225

Proteins, wheat bran and embryo, distribution, comparison (JONES and GERSDORFF)

1925, 64, 241

—, — — endosperm, distribution, comparison (JONES and GERSDORFF)

1925, 64, 241

—, — —, distribution (JONES and GERSDORFF)

1925, 64, 241

Retention, orange juice effect, children (CHANEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

Solubility, mineral oil (KUBIE)

1927, 72, 545

Transformation, cellulose decomposition, filamentous fungi (HEUKELEKIAN and WAKSMAN)

1925, 66, 323

Urease activity, effect (ROCKWOOD and HUSA)

1923, 55, v

Urine, alligator, distribution (HOPPING and SCOTT)

1923, 55, xxxiii

Nitrogen—continued:

Urine, distribution, phenylacetic acid influence (HIJIKATA)

1922, 51, 141

—, —, phenylpropionic acid influence (HIJIKATA)

1922, 51, 141

—, partition products, protein-free diet, effect (SANDIFORD, SANDIFORD, DEUEL, and BOOTHBY)

1926, 67, xxiv

—, — —, diet, protein feeding effect (SANDIFORD, SANDIFORD, DEUEL, and BOOTHBY)

1926, 67, xxiv

—, — —, thyroxine effect, protein-free diet (SANDIFORD, SANDIFORD, DEUEL, and BOOTHBY)

1926, 67, xxiv

—, residual fraction, composition (ROWE and PROCTOR)

1927, 74, iii

Water, lake (DOMOGALLA, JUDAY, and PETERSON)

1925, 63, 269

Yeast. I (VICKERY)

1926, 68, 585

—, nutrition (SWOBODA)

1922, 52, 91

Nitrogenous constituents:

Non-protein, blood, during acute retention (PLASS)

1923, 56, 17

—, —, — elimination (PLASS)

1923, 56, 17

—, —, hydrazine influence (LEWIS and LIZUM)

1926-27, 71, 33

Nitrogenous constituents—continued:

Non-protein, blood plasma,
during acute retention
(PLASS)

1923, 56, 17

—, — —, — elimination
(PLASS)

1923, 56, 17

Nucleic acid (CALVERY and
JONES)

1927, 73, 73

— —, plant (JONES and
PERKINS)

1924-25, 62, 557

— —, yeast (LEVENE)

1926, 67, 325

Urine, hen (DAVIS)

1927, 74, 509

m-Nitrophenylacetic acid:

Fate (MUENZEN, CERRE-
CEDO, and SHERWIN)

1926, 68, 503

Nitrous acid:

Amino nitrogen, aliphatic,
reaction (DUNN and
SCHMIDT)

1922, 53, 401

— — determination (WIL-
SON)

1923, 56, 183

Phenol test (GIBBS)

1926-27, 71, 445

Protein reaction with
(LEWIS and UPDEGRAFF)

1923, 56, 405

Nucleic acid:

Animal, analysis (LEVENE)

1922, 53, 441

—, preparation (LEVENE)

1922, 53, 441

Derivatives, ionization,
optical rotation, effect
(LEVENE, SIMMS, and
BASS)

1926, 70, 243

Metabolism, heat produc-
tion relation (RINGER
and RAPPORT)

1923-24, 58, 475

Nucleic acid—continued:

Nitrogenous groups (CAL-
VERY and JONES)

1927, 73, 73

Plant, nitrogenous groups
(JONES and PERKINS)

1924-25, 62, 557

— nucleoside dissociation
constant, relation to
structure of (LEVENE
and SIMMS)

1925, 65, 519

— nucleotide dissociation
constant, relation to
structure of (LEVENE
and SIMMS)

1925, 65, 519

Structure determination
from electrometric titra-
tion data (LEVENE and
SIMMS)

1926, 70, 327

—, plant nucleoside and
nucleotide dissociation
constants, relation (LE-
VENE and SIMMS)

1925, 65, 519

Tritico-, nucleotides (CAL-
VERY and REMSEN)

1927, 73, 593

Tubercle bacillus (JOHN-
SON and BROWN)

1922, 54, 721, 731

— —, nucleoprotein, prep-
aration (JOHNSON and
BROWN)

1922, 54, 721

Yeast, hydrolysis, dilute
alkali (LEVENE)

1923, 55, 9

—, magnesium compound,
preparation (BAUMANN)

1924, 61, 1

—, nitrogenous compo-
nents (LEVENE)

1926, 67, 325

Nucleic acid—continued:

- Yeast, nucleotide formation, boiled pancreas action (JONES and PERKINS) 1923, 55, 557
 —, —, sodium hydroxide action (JONES and PERKINS) 1923, 55, 567
 —, pentose determination, micro (HOFFMAN) 1927, 73, 15
 —, sodium carbonate action (CALVERY) 1927, 72, 27

Nuclein:

- Metabolism. I (JACKSON) 1923, 57, 121
 II (JACKSON) 1924, 59, 529

Nucleoprotein:

- Tubercle bacillus, nucleic acid preparation (JOHNSON and BROWN) 1922, 54, 721

Nucleosidase:

- I (LEVENE, YAMAGAWA, and WEBER) 1924, 60, 693
 II (LEVENE and WEBER) 1924, 60, 707
 III (LEVENE and WEBER) 1924, 60, 717
 Distribution (LEVENE and WEBER) 1924, 60, 717
 Properties (LEVENE, YAMAGAWA, and WEBER) 1924, 60, 693
 Purification (LEVENE and WEBER) 1924, 60, 707
 Specificity, degree (LEVENE and WEBER) 1924, 60, 717

Nucleosides:

- Dissociation constants, plant, nucleic acid structure, relation (LEVENE and SIMMS) 1925, 65, 519
 Pyrimidine, chemical structure, pyrimidine ionization, relation (LEVENE, BASS, and SIMMS) 1926, 70, 229
 Synthetic. I (LEVENE and SOBOTKA) 1925, 65, 463
 II (LEVENE and SOBOTKA) 1925, 65, 469

Nucleotide(s):

- Adenine, blood, human (JACKSON) 1923, 57, 121
 —, crystalline, isolation, blood (HOFFMAN) 1925, 63, 675
 —, preparation, tea leaves (CALVERY) 1926, 68, 593
 Blood, isolation (JACKSON) 1924, 59, 529
 Cytosine, isolation, tea leaves (CALVERY) 1927, 72, 549
 Dissociation constants, plant, nucleic acid structure, relation (LEVENE and SIMMS) 1925, 65, 519
 Guanine, crystalline (BUELL and PERKINS) 1927, 72, 21
 —, isolation, tea leaves (CALVERY) 1927, 72, 549
 Plant, animal tissue (JONES and PERKINS) 1924-25, 62, 291

Nucleotide(s)—continued:

Triticonucleic acid (CAL-
VERY and REMSEN)

1927, 73, 593

Yeast nucleic acid, boiled
pancreas action (JONES
and PERKINS)

1923, 55, 557

— — —, sodium hydroxide
action (JONES and
PERKINS)

1923, 55, 567

Nutrient:

Growth effect (PALMER and
KENNEDY)

1927, 75, 619

Purified, growth effect
(PALMER and KENNEDY)

1927, 74, 591

Nutrition:

Adult, fat-soluble vitamin
(SHERMAN and MAC-
LEOD)

1924, 59, xlv

Amino acids in. VIII
(SURE)

1924, 59, xv, 577

IX (SURE)

1924, 59, xvi

— — —, proteins, bean, value
(JONES, FINKS, and
WATERMAN)

1922, 52, 209

Arachin, deficiency (JONES
and WATERMAN)

1922, 52, 357

Carbohydrate-deficient
diet, preformed (Os-
BORNE and MENDEL)

1924, 59, 13, xlv

Chicken, requirements.
II (HART, HALPIN, and
STEENBOCK)

1922, 52, 379

III (HART, STEENBOCK,
LEPKOVSKY, and HAL-
PIN)

1923-24, 58, 33

Nutrition—continued:

Chicken, requirements.

IV (HART, STEENBOCK,
LEPKOVSKY, and HAL-
PIN) 1924, 60, 341

V (HART, STEENBOCK,
LEPKOVSKY, KLETZIEN,
HALPIN, and JOHNSON)

1925, 65, 579

VI (HART, STEENBOCK,
LEPKOVSKY, and HAL-
PIN) 1925, 66, 813

Cholesterol influence
(KNUDSON and RAN-
DLES)

1925, 63, xxxi

Cystine, growing rat (SHER-
MAN and MERRILL)

1925, 63, 331

— rôle (WOODS)

1925, 66, 57

Dialanyl-cystine (LEWIS
and LEWIS)

1927, 73, 535

— dianhydride (LEWIS and
LEWIS)

1927, 73, 535

Diglycyl-cystine (LEWIS
and LEWIS)

1927, 73, 535

Grain, irrigation effect
(GREAVES and CARTER)

1923-24, 58, 531

Growth, chick. I
(BETHKE, KENNARD,
and KIK)

1925, 63, 377

Inorganic substances. I
(FAIRHALL)

1926, 70, 495

Iron. I (HART, STEEN-
BOCK, ELVEHJEM, and
WADDELL)

1925, 65, 67

II (ELVEHJEM and
HART) 1926, 67, 43

Nutrition—continued:

- Iron. III (ELVEHJEM, HERRIN, and HART)
1926-27, 71, 255
- IV (HART, ELVEHJEM, WADDELL, and HERRIN)
1927, 72, 299
- Lactalbumin value (OSBORNE and MENDEL)
1924, 59, 339
- Meat connective tissue, protein value, relation (MITCHELL, BEADLES, and KRUGER)
1927, 73, 767
- Milk effect (SHERMAN and CAMPBELL)
1924, 60, 5
- , properties. III (MATILL, CARMAN, and CLAYTON)
1924, 61, 729
- Mineral elements rôle (WOODS)
1925, 66, 57
- Mung bean (HELLER)
1927, 75, 435
- Nitrogen, yeast (SWOBODA)
1922, 52, 91
- Plant, ions (DOBY and HIBBARD)
1927, 73, 405
- Plastein (BEARD)
1926-27, 71, 477
- Potassium. I (MILLER)
1923, 55, 45
- II (MILLER)
1923, 55, 61
- III (MILLER)
1926, 67, 71
- IV (MILLER)
1926, 70, 587
- V (MILLER)
1926, 70, 593
- Protein, beef heart (MITCHELL and BEADLES)
1926-27, 71, 429

Nutrition—continued:

- Protein, beef kidney (MITCHELL and BEADLES)
1926-27, 71, 429
- , — liver (MITCHELL and BEADLES)
1926-27, 71, 429
- , heat effect (GOLDBLATT and MORITZ)
1927, 72, 321
- , oxidation effect (GOLDBLATT and MORITZ)
1927, 72, 321
- Proteins, amino acids, bean, value (JONES, FINKS, and WATERMAN)
1922, 52, 209
- , pea, cow-, value (FINKS, JONES, and JOHNS)
1922, 52, 403
- , —, field, value (FINKS, JONES, and JOHNS)
1922, 52, 403
- Scurvy effect (ANDERSON and SMITH)
1924, 61, 181
- , post- (SMITH and ANDERSON)
1924, 59, viii
- Synthetic diets, pigeon (SUGIURA and BENEDICT)
1923, 55, 33
- Vitamin B rôle (OSBORNE and MENDEL)
1922, 54, 739
- , fat-soluble, adult (SHERMAN and MACLEOD)
1924, 59, xlv
- Wheat bran proteins (MURPHY and JONES)
1926, 69, 85
- , value (HART, STEENBOCK, HUMPHREY, and HULCE)
1924-25, 62, 315

Nutrition—continued:

Yeast, nitrogen (SWOBODA)
1922, 52, 91

Zinc and (HUBBELL and
(MENDEL)
1927, 75, 567

O**Oat:**

Avena sativa, glutelin
(CSONKA)
1927, 75, 189

Obesity:

Fat, tissues, experimen-
tally induced (FOSTER
and BENNINGHOVEN)
1926, 70, 285

Glycogen, tissues, experi-
mentally induced (FOS-
TER and BENNING-
HOVEN)
1926, 70, 285

Octyl alcohol:

Secondary, halogen substi-
tution of hydroxyl group
(McKENZIE and TUD-
HOPE)
1924-25, 62, 551

Oil:

Antirachitic effect (SHIP-
LEY, KINNEY, and
McCOLLUM)
1924, 59, 177

Cod liver. *See* Cod liver
oil.

Fruit. *See* Fruit oil.

Vegetable. *See* Vegetable
oil.

Vitamin A destruction,
effect (ESTILL and
McCOLLUM)
1927, 75, 157

Volatile, *Mentha aquatica*
(KREMER)
1922, 52, 439

Wheat. *See* Wheat oil.

Oocytin:

Composition. II (CLARK
and SHARP)

1925, 66, 123

Properties. II (CLARK
and SHARP)

1925, 66, 123

Ophiodon elongatus:

See Cod.

Ophthalmia:

Cod liver oil, relation
(NELSON and STEEN-
BOCK)

1925, 64, 299

Inorganic constituents of
ration, relation (JONES)
1927, 75, 139

— portion of diet, relation
(McCOLLUM SIMMONDS,
and BECKER)

1922, 53, 313

Light relation (STEEN-
BOCK and NELSON)
1923, 56, 355

Vitamin A starvation,
relation (McCOLLUM,
SIMMONDS, and BECKER)
1922, 53, 313

— A-containing diets
(McCOLLUM, SIMMONDS,
and BECKER)
1925, 64, 161

Optical activity:

Amino acids, sugar metab-
olism, relation (BURGE,
WICKWIRE, ESTES, and
WILLIAMS)

1927, 74, 235

Cysteine (ANDREWS)
1926, 67, lix
1926, 69, 209

Cystine (ANDREWS)
1925, 63, xx
1925, 65, 147

l-Cystine (ANDREWS)
1927, 74, xiii

Optical activity—continued:

Glucose, excreted by renal diabetics, reducing power, relation (MAGERS and GIBSON) 1927, 75, 299

See also Optical behavior, Optical rotation, Rotatory dispersion, Specific rotation, Walden inversion.

Optical behavior:

2,5-Anhydrogluconic acid (LEVENE) 1924, 59, 135

2,5-Anhydroglucose (LEVENE) 1924, 59, 135

2,5-Anhydromannonic acid (LEVENE) 1924, 59, 135

See also Mutarotation, Optical activity, Optical rotation, Rotatory dispersion, Specific rotation.

Optical properties:

Amino acids (KEENAN) 1924-25, 62, 163

Optical rotation:

Gluconic acids, methylated (LEVENE and MEYER) 1925, 65, 535

— —, —, salts (LEVENE and MEYER) 1925, 65, 535

Glucose pentacetates, concentration influence (LEVENE and BENCOWITZ) 1927, 73, 679

— —, solvent influence (LEVENE and BENCOWITZ) 1927, 73, 679

L-Glyceric acid, substituted (GREENWALD) 1925, 63, 339

Optical rotation—continued:

Ionization effect. II (LEVENE, BASS, STEIGER, and BENCOWITZ)

1927, 72, 815

III (LEVENE and BASS) 1927, 74, 727

Mannose pentacetates, concentration influence (LEVENE and BENCOWITZ) 1927, 73, 679

— —, solvent influence (LEVENE and BENCOWITZ) 1927, 73, 679

Nucleic acid derivatives, ionization effect (LEVENE, SIMMS, and BASS) 1926, 70, 243

Sulfocarboxylic acid (LEVENE and MIKESKA) 1925, 63, 85

— — salts (LEVENE and MIKESKA) 1925, 63, 85

α -Sulfopropionic acid (LEVENE and MIKESKA) 1924, 60, 1

Thiocarboxylic acid (LEVENE and MIKESKA) 1925, 63, 85

— — salts (LEVENE and MIKESKA) 1925, 63, 85

Thiolactic acid (LEVENE and MIKESKA) 1924, 60, 1

Orange:

Juice, antiscorbutic vitamin, solubility, desiccated (HART, STEENBOCK, and LEPKOVSKY) 1922, 52, 241

—, calcium retention, children (CHANEY and BLUNT) 1925, 66, 829
1926, 67, xxxi

Orange—continued:

Juice, fermentation, vitamin C (LEPKOVSKY, HART, HASTINGS, and FRAZIER)

1925, 66, 49

—, magnesium retention, children (CHANEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

—, nitrogen retention, children (CHANEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

—, phosphorus retention, children (CHANEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

—, urine acidity effect (BLATHERWICK and LONG)

1922, 53, 103

—, — organic acids, children (CHANEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

—, vitamin C preservation, dried (HUMPHREY)

1926, 69, 511

Protein (SMITH)

1925, 63, 71

Organic acid(s):

Uric acid excretion, effect (GIBSON and DOISY)

1923, 55, xvii, 605

Urine excretion, diet influence (McLAUGHLIN and BLUNT)

1923–24, 58, 267

—, orange juice effect, children (CHANEY and BLUNT)

1925, 66, 829

1926, 67, xxxi

Organic acid(s)—continued:

Urine, titration (PALMER)

1926, 68, 245

Organic compounds:

Alkoxy groups, determination, volumetric (EATON and WEST)

1927, 75, 283

Systems, oxidation-reduction (CLARK, COHEN, GIBBS, and SULLIVAN)

1924, 59, xxi

Organic constituents:

Non-protein, blood, fish (DENIS)

1922, 54, 693

Saliva (UPDEGRAFF and LEWIS)

1924, 61, 633

Organic fluids:

Ammonia determination, micro (GAD-ANDRESEN)

1922, 51, 367

Organic material:

Copper determination (HENDRIX)

1927, 74, vii

Organic matter:

Bone, growth (HAMMETT)

1925, 64, 409

—, —, parathyroid gland rôle (HAMMETT)

1927, 72, 505

—, —, thyroid gland rôle (HAMMETT)

1927, 72, 505

Organic substance:

Detoxication, foreign, surface tension, relation (ROSE and SHERWIN)

1924, 59, p. 1

Ornithine:

Synthesis, fowl (CROWDLE and SHERWIN)

1923, 55, iv, 365

Ortho-chrom-T:

Hydrogen ion concentration, blood, determination, colorimetric (McCLENDON, RUSSELL, and TRACY)

1926, 70, 705

Oryza sativa:

See Rice.

Osmosis:

Blood, honey bee larva (BISHOP, BRIGGS, and RONZONI)

1925, 66, 77

Osmotic pressure:

Blood serum chlorides, effect (GRAM)

1923, 56, 593

— — conductivity, effect (GRAM)

1923, 56, 593

— — freezing point, effect (GRAM)

1923, 56, 593

— — proteins, effect (GRAM)

1923, 56, 593

— —, regulation (GRAM)

1923, 56, 593

Body fluid, honey bee, larval activity, changes (BISHOP)

1923-24, 58, 543

— —, — —, metamorphosis, changes (BISHOP)

1923-24, 58, 543

Donnan equilibrium, relationship between blood cells and serum (WU)

1926, 70, 203

Hemoglobin (AUSTIN, SUNDERMAN, and CAMACK)

1926, 70, 427

—, base bound by (AUSTIN, SUNDERMAN, and CAMACK)

1926, 70, 427

Ovary:

Chemical studies. XI (TOURTELLOTTE and HART)

1926-27, 71, 1

XII (HART and HEYL)

1927, 72, 395

XIII (HEYL and HART)

1927, 75, 407

Hormone, chemical properties (RALLS, JORDAN, and DOISY)

1926, 69, 357

—, extraction (DOISY, RALLS, ALLEN, and JOHNSTON)

1924, 61, 711

(RALLS, JORDAN, and DOISY)

1926, 69, 357

—, preparation (DOISY, ALLEN, RALLS, and JOHNSTON)

1924, 59, xliii

—, properties (DOISY, ALLEN, RALLS, and JOHNSTON)

1924, 59, xliii

(DOISY, RALLS, ALLEN, and JOHNSTON)

1924, 61, 711

Residue, fat (TOURTELLOTTE and HART)

1926-27, 71, 1

—, water-soluble extractives (HEYL and HART)

1927, 75, 407

Oxalates:

Inorganic ion ratio, administration effect (GROSS)

1923, 55, 729

Oxidation:

Antiketogenesis, relationship (WEST)

1925, 66, 63

Blood, rate (KOEHLER)

1923-24, 58, 813

Oxidation—continued:

Catalytic, complex iron salts (BAUDISCH and DAVIDSON)

1926-27, 71, 501

—, hydantoins (BAUDISCH and DAVIDSON)

1927, 75, 247

Cystine, animal organism (LEWIS, UPDEGRAFF, and MCGINTY)

1924, 59, 59

Hydrocarbons, tertiary (LEVENE and TAYLOR)

1922, 54, 351

Mercaptans, secondary, to corresponding sulfonic acids (LEVENE and MIKESKA)

1925, 65, 515

1927, 75, 587

—, to corresponding sulfonic acids (LEVENE and MIKESKA)

1926, 70, 365

Methylated glucoses (SOBOTKA)

1926, 69, 267

Protein, nutritive value, effect (GOLDBLATT and MORITZ)

1927, 72, 321

Sugar-induced (HARNED)

1927, 74, xlvii

Sulfur compounds, cystine-related, body (HILL and LEWIS)

1924, 59, 557

Thio acids, to corresponding sulfonic acids (LEVENE and MIKESKA)

1926, 70, 365

Oxidation-reduction:

Potentials, 2-oxydihydroindole-3-propionic acid and halogen derivatives (KENDALL and ORT)

1926, 68, 611

Oxidation-reduction—continued:

Potentials, thyroxine-related compounds (ORT)

1926, 67, x

Systems, equilibrium, organic compounds (CLARK, COHEN, GIBBS, and SULLIVAN)

1924, 59, xxi

—, reversible, cysteine-cystine (KENDALL and NORD)

1926, 69, 295

—, —, glutathione, reduced and oxidized (KENDALL and NORD)

1926, 69, 295

Thermostable system (HOPKINS and DIXON)

1922, 54, 527

Oxyadenine:

(BUELL and PERKINS)

1927, 72, 745

2-Oxydihydroindole-3-propionic acid:

Halogen derivatives, oxidation-reduction potentials (KENDALL and ORT)

1926, 68, 611

Oxidation-reduction potentials (KENDALL and ORT)

1926, 68, 611

Oxygen:

Absorption, blood (McELROY and GUTHRIE)

1927, 74, xxxv

Acid and carbon dioxide, interaction, blood (HILL)

1922, 51, 359

Blood (LUNDGAARD and MÖLLER)

1923, 55, 315

— anoxemia, partial pressure (GREENE and GREENE)

1922, 52, 137

Oxygen—continued:

- Blood, arterial (STEWART)
1924-25, 62, 641
- , —, relationships, exercise effect (HIMWICH and BARR)
1923, 57, 363
- , exercise effect (LUNDSGAARD and MÖLLER)
1923, 55, 315, 477
- , venous, mixed (STEWART)
1924-25, 62, 641
- Capacity, blood pigment, nitrobenzene effect (STIMSON)
1927, 75, 741
- , — —, splenectomy effect (STIMSON)
1927, 75, 95
- , body fluids, honey bee, larval activity, changes (BISHOP)
1923-24, 58, 543
- , — —, — bee, metamorphosis, changes (BISHOP)
1923-24, 58, 543
- Carbon dioxide and acid, interaction, blood (HILL)
1922, 51, 359
- Combining power, total, determination, blood, Van Slyke apparatus (LUNDSGAARD and MÖLLER)
1922, 52, 377
- properties, blood. II (STADIE and ROSS)
1926, 68, 229
- — — thermodynamic relations (STADIE and MARTIN)
1924, 60, 191
- Consumption, sodium lactate effect (ABRAMSON, EGGLETON, and EGGLETON)
1927, 75, 763

Oxygen—continued:

- Consumption, tissues, hydrogen ion concentration effect (KOEHLER and REITZEL)
1925, 64, 739
- , —, measurement, apparatus (KOEHLER)
1925, 63, 475
- Determination (SHEAFF)
1922, 52, 35
- , portable calorimeter (McCLENDON, HUMPHREY, and LOUCKS)
1926, 69, 513
- Dissociation curve, blood (BOCK, FIELD, and ADAIR)
1924, 59, 353
- —, hemoglobin (ADAIR)
1925, 63, 529
- Exchange, blood, and circulation (MURRAY and MORGAN)
1925, 65, 419
- Hemoglobin and, equilibrium between (FERRY)
1924, 59, 295
- Methemoglobin (CONANT and SCOTT)
1926, 69, 575
- Molecular, hemoglobin oxidations, tension effect (NEILL and HASTINGS)
1925, 63, 479
- Partial pressure, blood, anoxemia (GREENE and GREENE)
1922, 52, 137
- Saturation, hemoglobin, insulin effect (OLMSTED and TAYLOR)
1924, 59, xxx
- Solubility, mineral oil (KUBIE)
1927, 72, 545

Oxygen—continued:

Supply, factors involved
(MURRAY and MORGAN)
1925, 65, 419

Tension, blood carbon
dioxide, effect (PETERS,
CULLEN, and AUSTIN)
1922, 54, 149

Transport, bloods contain-
ing hemocyanin (RED-
FIELD, COOLIDGE, and
HURD)
1926, 69, 475

Oxyhemoglobin:

Alkali-binding value (VAN
SLYKE, HASTINGS,
HEIDELBERGER, and
NEILL)
1922, 54, 481

Buffer value (VAN SLYKE,
HASTINGS, HEIDEL-
BERGER, and NEILL)
1922, 54, 481

Crystalline, preparation
(HEIDELBERGER)
1922, 53, 31

Palladium:

Electrodes (ANDREWS)
1924, 59, 479

Pancreas:

Active constituent, proper-
ties (DOISY, SOMOGYI,
and SHAFFER)
1923, 55, xxxi

Amylase activity, sulfur-
containing amino acid,
effect (CALDWELL)
1924, 59, 661

—, heat destruction
(COOK)
1925, 65, 135

Blood supply (COLLENS)
1925, 64, 461

Pancreas—continued:

Cod, ling, pentose com-
pounds, distribution
(BERKELEY)
1923–24, 58, 611

Diabetes, Eck fistula effect
(HENDRIX and SWEET)
1923, 55, 161

Extracts, aqueous. I
(MURLIN, CLOUGH,
GIBBS, and STOKES)
1923, 56, 253

II (PIPER, ALLEN, and
MURLIN)
1923–24, 58, 321

III (KIMBALL and MUR-
LIN)
1923–24, 58, 337

—, —, carbohydrate
metabolism, depancrea-
tized animals, effect
(MURLIN, CLOUGH,
GIBBS, and STOKES)
1923, 56, 253

Insulin in, domestic ani-
mals, amount (FINGER
and WILSON)
1924, 59, 83

Pentose compounds, ling
cod, distribution
(BERKELEY)
1923–24, 58, 611

Perfusate, blood sugar,
depancreatized animals,
influence (CLOUGH,
STOKES, GIBBS, STONE,
and MURLIN)
1923, 55, xxx

—, dextrose-nitrogen ratio,
depancreatized animals,
influence (CLOUGH,
STOKES, GIBBS, STONE,
and MURLIN)
1923, 55, xxx

Pancreas—continued:

Perfusate, respiratory quotient, depancreatized animals, influence (CLOUGH, STOKES, GIBBS, STONE, and MURLIN)

1923, 55, xxx

Yeast nucleic acid, nucleotides (JONES and PERKINS)

1923, 55, 557

Pancreatectomy:

Blood sugar, pancreatic perfusates, influence (CLOUGH, STOKES, GIBBS, STONE, and MURLIN)

1923, 55, xxx

Carbohydrate metabolism, pancreas extracts, aqueous, influence (MURLIN, CLOUGH, GIBBS, and STOKES)

1923, 56, 253

Dextrose-nitrogen ratio, pancreatic perfusates, influence (CLOUGH, STOKES, GIBBS, STONE, and MURLIN)

1923, 55, xxx

— ratios, fasted, depancreatized dogs (CHAIKOFF)

1927, 74, 203

Glucose equivalent of insulin (ALLAN)

1924, 59, xxviii

Glycogen, liver, fasted, depancreatized dogs (CHAIKOFF)

1927, 74, 203

—, muscles, fasted, depancreatized dogs (CHAIKOFF)

1927, 74, 203

Glycuronic acid production (QUICK)

1926, 70, 59

Pancreatectomy—continued:

Insulin effect, metabolism (CHAIKOFF, MACLEOD, and MARKOWITZ)

1925, 63, lxxi

Ketone body excretion, fasted, depancreatized dogs (CHAIKOFF)

1927, 74, 203

Lactic acid formation (WEBER, BRIGGS, and DOISY)

1925, 66, 653

Metabolism, insulin effect (CHAIKOFF, MACLEOD, and MARKOWITZ)

1925, 63, lxxi

Respiratory quotient, pancreatic perfusates, influence (CLOUGH, STOKES, GIBBS, STONE, and MURLIN)

1923, 55, xxx

Pancreatin:

Corn-starch hydrolysis (WALTON and DITTMAR)

1926, 70, 713

Panulirus argus:

See Crawfish.

Papain:

Lipase (SANDBERG and BRAND)

1925, 64, 59

Paraffin oil:

Carbon dioxide solvent (RAFFEL)

1927, 74, 839

Paranitrophenol:

Hydrogen ion concentration, blood, determination, colorimetric (McCLENDON, RUSSELL, and TRACY)

1926, 70, 705

Parathyroid:

Deficiency, bone composition, effect (HAMMETT)

1924, 59, xli

Extract, calcium excretion effect (GREENWALD and GROSS)

1925, 66, 217

1926, 68, 325

—, calf, administration effect (ROBINSON, HUFFMAN, and BURT)

1927, 73, 477

—, hypercalcemia induced by (HJORT, ROBISON, and TENDICK)

1925, 65, 117

—, —, thyreoparathyroprivic dogs, induced by (HJORT, ROBISON, and TENDICK)

1925, 65, 117

—, magnesium excretion effect (GREENWALD and GROSS)

1925, 66, 217

—, nitrogen excretion effect (GREENWALD and GROSS)

1925, 66, 217

—, phosphorus excretion effect (GREENWALD and GROSS)

1925, 66, 217

1926, 68, 325

Function (SALVESEN)

1923, 56, 443

Gland, bone ash, growth, rôle (HAMMETT)

1927, 72, 505

—, — calcium, growth, rôle (HAMMETT)

1927, 72, 527

—, — magnesium, growth, rôle (HAMMETT)

1927, 72, 527

Parathyroid—continued:

Gland, bone organic matter, growth, rôle (HAMMETT)

1927, 72, 505

—, — phosphorus, growth, rôle (HAMMETT)

1927, 72, 527

—, — water, growth, rôle (HAMMETT)

1927, 72, 505

—, calcium, blood, relation (GREENWALD)

1926, 67, xxxv

Hormone (COLLIP, CLARK, and SCOTT)

1925, 63, 439

(HJORT, NORTH, and TENDICK)

1926, 67, xxxvi

II (COLLIP and CLARK)

1925, 66, 133

—, blood calcium regulation (COLLIP)

1925, 63, 395

—, calcium, gastric juice, effect (AUSTIN)

1927, 74, lxiv

— extraction (COLLIP)

1925, 63, 395

—, gastric secretion, effect (AUSTIN)

1927, 74, lxiv

—, muscular rigidity, catatonias, control (LOONEY)

1926, 67, xxxvii

—, parathyroid tetany, relation (COLLIP)

1925, 63, 395

—, physiological action (COLLIP and CLARK)

1925, 64, 485

Tetany (CAMERON and MOORHOUSE)

1925, 63, 687

Parathyroid—continued:

Tetany, blood calcium
(CAMERON and MOORHOUSE)

1925, 63, 687

—, —, inorganic ion balance (GROSS and UNDERHILL)

1922, 54, 105

—, cerebrospinal fluid calcium (CAMERON and MOORHOUSE)

1925, 63, 687

—, guanidine relation (COLLIP and CLARK)

1926, 67, 679

—, liver rôle (BLUMENSTOCK and ICKSTADT)

1924, 61, 91

—, parathyroid hormone relation (COLLIP)

1925, 63, 395

Parathyroidectomy:

Blood toxin (GREENWALD)

1924, 61, 33

— serum, refractive index (HAMMETT)

1923, 55, x

— —, water content (HAMMETT)

1923, 55, x

Femur ash, calcium (HAMMETT)

1923, 57, 285

— —, magnesium (HAMMETT)

1923, 57, 285

— —, phosphorus (HAMMETT)

1923, 57, 285

Guanidines, urine (GREENWALD)

1924, 59, 329

Humerus ash, calcium (HAMMETT)

1923, 57, 285

— —, magnesium (HAMMETT)

1923, 57, 285

Parathyroidectomy—continued:

Humerus ash, phosphorus (HAMMETT)

1923, 57, 285

Tetany cause, blood serum calcium and protein, relation between (SALVESEN and LINDER)

1923-24, 58, 635

Pea:

Cow-, *Vigna sinensis*, proteins, cystine nutritive properties (FINKS, JONES, and JOHNS)

1922, 52, 403

Field, *Pisum sativum*, proteins, cystine nutritive properties (FINKS, JONES, and JOHNS)

1922, 52, 403

Peanut:

Flour, protein value, supplement (EDDY and ECKMAN)

1923, 55, 119

Peneus setiferus:

See Shrimp.

Penicillium luteum-purpurogenum:

Gluconic acid production. I (MAY, HERRICK, THOM, and CHURCH)

1927, 75, 417

Pentacosanic acid:

α -Hydroxyiso-, synthesis (LEVENE and TAYLOR)

1922, 52, 227

Pentamethyl-d-galactose:

Dimethyl acetals (LEVENE and MEYER)

1927, 74, 695

Pentamethylglucose:

Dimethyl acetal (LEVENE and MEYER)

1926, 69, 175

Pentamethyl-*d*-mannose:

Dimethyl acetals (LEVENE
and MEYER)

1927, 74, 695

Pentosan:

Determination, micro
(YOUNGBURG)

1927, 73, 599

Pentose(s):

Absorption, intestine
(CORI)

1925, 66, 691

*Bacillus granulobacter pec-
tinovorum*, fermentation
by (PETERSON, FRED,
and SCHMIDT)

1924, 60, 627

Compounds, pancreas,
ling cod, distribution
(BERKELEY)

1923-24, 58, 611

Determination, micro
(YOUNGBURG)

1927, 73, 599

—, —, yeast nucleic acid
and derivatives (HOFF-
MAN)

1927, 73, 15

Fermentation, molds
(PETERSON, FRED, and
SCHMIDT)

1922, 54, 19

-Fermenting bacteria, hex-
ose fermentation
(PETERSON, FRED, and
ANDERSON)

1922, 53, 111

Metabolism. I (YOUNG-
BURG and PUCHER)

1924, 61, 741

(CORLEY)

1926, 70, 521

II (YOUNGBURG)

1927, 73, 599

Tolerance (BERGLUND and
NI)

1925, 63, xlviii

Pentose(s)—*continued*:

Yeast nucleic acid, deter-
mination, micro (HOFF-
MAN)

1927, 73, 15

Pepsin:

Isoelectric precipitation
(FENGER and ANDREW)

1927, 73, 371

Physical character
(FORBES)

1926-27, 71, 559

Properties (FORBES)

1926-27, 71, 559

Protease, autolytic, rela-
tion (BAERNSTEIN and
BRADLEY)

1926, 67, xiv

Protein digestion, gossy-
pol effect (JONES and
WATERMAN)

1923, 56, 501

— synthesis, concentration
effect (BORSOOK and
WASTENEYS)

1925, 63, 563

Purification (McMEEKIN
and KOCH)

1926, 67, xiii

(FORBES)

1926-27, 71, 559

Synthesis (WASTENEYS and
BORSOOK)

1924-25, 62, 15

—, hydrogen ion concen-
tration effect (WAST-
ENEYS and BORSOOK)

1924-25, 62, 675

—, temperature effect
(BORSOOK and WAST-
ENEYS)

1924-25, 62, 633

Peptide(s):

Alkali action on (LEVENE
and PFALTZ)

1926, 70, 219

Peptide(s)—continued:

Hydrolysis rate, chemical structure, relation. I
(LEVENE, SIMMS, and PFALTZ)

1924, 61, 445

II (LEVENE and SIMMS)

1924-25, 62, 711

III (LEVENE, SIMMS, and PFALTZ)

1926, 70, 253

Methylated, hydrolysis rate (LEVENE, SIMMS, and PFALTZ)

1924, 61, 445

—, physical constants (LEVENE, SIMMS, and PFALTZ)

1924, 61, 445

—, synthesis (LEVENE, SIMMS, and PFALTZ)

1924, 61, 445

Nitrogen, blood (BLAU)

1923, 56, 873

—, —, arterial hypertension (JACKSON, SHERWOOD, and MOORE)

1927, 74, 231

Peptone:

Blood plasma, serum and tissue extract action (LOEB, FLEISHER, and TUTTLE)

1922, 51, 461

Conductivity and proteolysis (BAERNSTEIN)

1927, 74, lviii, 351

Perillus bioculatus:

Color cause, carotene (PALMER and KNIGHT)

1924, 59, 443

—, *Leptinotarsa decemlineata* lymph, relation (PALMER and KNIGHT)

1924, 59, 443

Permeability:

Blood cell, red (WAKEMAN, EISENMAN, and PETERS)

1927, 73, 567

Membranes, collodion (NELSON and MORGAN)

1923-24, 58, 305

—, nitrocellulose (PIERCE)

1927, 75, 795

Permutit:

Amines, reagent (WHITE-HORN)

1923, 56, 751

Peroxidation:

Antirachitic vitamin, relation (YODER)

1926, 70, 297

Peroxides:

Intermediate, ferrous salts oxidation (SHAFFER)

1927, 74, xlvii

Persulfate:

Nitrogen determination (WONG)

1923, 55, 427, 431

Phaseolus angularis:

See Bean, adzuki.

Phaseolus lunatus:

See Bean, Lima.

Phaseolus vulgaris:

See Bean, navy.

Phenol(s):

Determination, blood (RAKESTRAW)

1923, 56, 109

(THEIS and BENEDICT)

1924, 61, 67

Production, colon group (HANKE and KOESSLER)

1924, 59, 867

—, intestinal microorganisms, laboratory media (HANKE and KOESSLER)

1924, 59, 855

Phenol(s)—continued:

Tests. II (GIBBS)
1926-27, 71, 445

III (GIBBS)
1927, 72, 649

Thio-, behavior, animal
organism (HILL and
LEWIS)
1924, 59, 569

Phenol red:

Proteins, combination
(GROLLMAN)
1925, 64, 141

Phenylacetic acid:

m-Amino-, fate (MUENZ-
ZEN, CERECEDO, and
SHERWIN)
1926, 68, 503

m-Chloro-, fate (MUENZ-
ZEN, CERECEDO, and
SHERWIN)
1926, 68, 503

Di-, fate, animal body
(MIRIAM, WOLF, and
SHERWIN)
1926-27, 71, 249

m-Hydroxy-, fate (MUENZ-
ZEN, CERECEDO, and
SHERWIN)
1926, 68, 503

m-Nitro-, fate (MUENZ-
ZEN, CERECEDO, and SHER-
WIN)
1926, 68, 503

Nitrogen distribution,
urine, influence (HIJ-
KATA)
1922, 51, 141

Ring substitution prod-
ucts, fate (CERECEDO
and SHERWIN)
1923-24, 58, 215

Tri-, fate, animal body
(MIRIAM, WOLF, and
SHERWIN)
1926-27, 71, 695

Phenylalanine:

Metabolism, intermediary
(SHAMBAUGH and
LEWIS)
1926, 67, xxx

Phenylaminoacetic acid:

Acetic anhydride, acetone,
and pyridine, action
(LEVENE and STEIGER)
1927, 74, 689

Phenylcarbinol:

Tri-, fate, animal body
(MIRIAM, WOLF, and
SHERWIN)
1926-27, 71, 695

***p*-Phenylenediamine:**

Color reactions (CLARK,
COHEN, and GIBBS)
1926, 67, x

Phenylhydrazine:

Pyrimidines, derivatives
(LEVENE)
1925, 63, 653

Phenylmethane:

Tri-, fate, animal body
(MIRIAM, WOLF, and
SHERWIN)
1926-27, 71, 695

Phenylpropionic acid:

Nitrogen distribution,
urine, influence (HIJ-
KATA)
1922, 51, 141

Phlorhizin:

γ -Aminobutyric acid,
phlorhizinized dog, fate
(CORLEY)
1926, 70, 99

δ -Aminovaleric acid, phlor-
hizinized dog, fate (COR-
LEY)
1926, 70, 99

Bile salt metabolism, influ-
ence (SMYTH and WHIP-
PLE)
1924, 59, 655

Carbohydrate oxidation,
phlorhizinized dogs
(WILSON)
1927, 74, xxxix

Phlorhizin—continued:

- Diabetes, glucose action
(WIERZUCHOWSKI)
1927, 73, 445
- , glycerol metabolism
(CHAMBERS and DEUEL)
1925, 65, 21
- , hypoglycemia with convulsions (WIERZUCHOWSKI)
1926, 67, xlii
- , insulin and (NASH)
1923-24, 58, 453
- II (NASH)
1925, 66, 869
- , — effect (RINGER)
1923-24, 58, 483
(GAEBLER)
1925, 63, li
(GAEBLER and MURLIN)
1925, 66, 731
- , — orally administered, influence (GAEBLER)
1925, 63, li
(GAEBLER and MURLIN)
1925, 66, 731
- , ketosis (WIERZUCHOWSKI)
1927, 73, 417
- , kidney factor (NASH)
1922, 51, 171
- , lactic acid formation (LOEBEL, BARR, TOLSTOI, and HIMWICH)
1924, 61, 9
- , mechanism (NASH)
1925, 66, 869
(DEUEL, WILSON, and MILHORAT)
1927, 74, 265
- I (NASH and BENEDICT)
1923, 55, 757
- II (NASH and BENEDICT)
1924, 61, 423
- , monosaccharide elimination rate (DEUEL and CHAMBERS)
1925, 63, xxii

Phlorhizin—continued:

- Diabetes, respiratory metabolism, glucose effect (WIERZUCHOWSKI)
1926, 68, 385
- , sugar elimination (DEUEL and CHAMBERS)
1925, 65, 7
- Glycosuria, insulin and (COLWELL)
1924, 61, 289
- Nephrectomized dogs, action (DEUEL, MILHORAT, and SWEET)
1927, 74, xl
- Phosphate(s):**
- Bell-Doisy method, modification (BRIGGS)
1922, 53, 13
- Blood, carbohydrate metabolism, relation (BOLLIGER and HARTMAN)
1925, 63, lvi
1925, 64, 91
- changes following administration (SALVESEN, HASTINGS, and MCINTOSH)
1924, 60, 311
- plasma, determination, colorimetric, micro (KUTTNER and COHEN)
1927, 75, 517
- , —, error (DENIS and VON MEYSENBUG)
1922, 52, 1
- Bone, determination (KRAMER and HOWLAND)
1926, 68, 711
- Buffers, glucose determination in presence (VISSCHER)
1926, 69, 1
- Cerebrospinal fluid, determination, colorimetric, micro (KUTTNER and COHEN)
1927, 75, 517

Phosphate(s)—continued:

- Colorimetric method, applications (BRIGGS) 1924, 59, 255
- Determination, blood plasma, error (DENIS and VON MEYSENBUG) 1922, 52, 1
- , bone (KRAMER and HOWLAND) 1926, 68, 711
- , colorimetric, micro, blood plasma (KUTTNER and COHEN) 1927, 75, 517
- , —, —, cerebrospinal fluid (KUTTNER and COHEN) 1927, 75, 517
- , —, —, pus (KUTTNER and COHEN) 1927, 75, 517
- Inorganic, blood protein, Bright's disease, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, —, heart failure, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, sodium lactate intravenously injected, effect (RIEGEL) 1927, 74, 135
- , body fluids, protein, Bright's disease, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, —, heart failure, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , muscle (FISKE and SUBBAROW) 1927, 74, xxii

Phosphate(s)—continued:

- Metabolism, anesthesia effect (BOLLIGER) 1926, 67, lvi
- , — relation (BOLLIGER) 1926, 69, 721
- Phosphorus determination, ceruleomolybdate (GILBERT and SMITH) 1927, 74, 223
- Pus, determination, colorimetric, micro (KUTTNER and COHEN) 1927, 75, 517
- Rickets, diet supplement (KARELITZ and SHOHL) 1927, 73, 665
- Secondary, determination, direct (KUGELMASS and ROTHWELL) 1923-24, 58, 643

Phosphate ion:

- Equilibrium determination (KUGELMASS and SHOHL) 1923-24, 58, 649

Phosphatide(s):

- Blood, pregnancy (BAUMANN and HOLLY) 1924, 59, xxv
- Fraction, tubercle bacilli (ANDERSON) 1927, 74, 537
- Milk (HESS and HELMAN) 1925, 64, 781
- Plant. I (LEVENE and ROLF) 1924-25, 62, 759
- II (LEVENE and ROLF) 1926, 68, 285
- Suprarenal, hypertrophy effect (BAUMANN) 1926, 67, xxx

Phospholipid:

- Cutaneous epithelium (ECKSTEIN and WILE) 1926, 69, 181

Phospholipid—continued:

Yeast (AUSTIN)
1924, 59, lii

Phosphoric acid:

Compound, blood (GREEN-
WALD)

1925, 63, 339

Compounds, blood serum,
fetus (PLASS and TOMP-
KINS) 1923, 56, 309

—, —, maternal (PLASS
and TOMPKINS)

1923, 56, 309

Lipoid, blood, determi-
nation (RANDLES and
KNUDSON)

1922, 53, 53

Liver autolysis, liberation
(SEVRINGHAUS)

1923, 57, 191

Phosphoric esters:

Glucose, substituted
(LEVENE and MEYER)

1922, 53, 431

—, —, hydrolysis rate
(LEVENE and MEYER)

1922, 53, 431

Phosphorus:

Absorption, carbohydrates
and (BERGEIM)

1926, 70, 35

—, intestine (BERGEIM)

1926, 67, lv

1926, 70, 51

Assimilation, butter fat in-
fluence (BOGERT and
TRAIL)

1922, 54, 753

—, yeast influence (BOG-
ERT and TRAIL)

1922, 54, 753

Balance, alfalfa, milking
cows, effect (HART,
STEENBOCK, HOPPERT,
and HUMPHREY)

1922, 53, 21

Phosphorus—continued:

Balance, bone meal and
green grasses, milking
cows, effect (HART,
STEENBOCK, HOPPERT,
and HUMPHREY)

1923-24, 58, 43

—, cholesterol, irradiated,
effect (HESS and SHER-
MAN) 1927, 73, 145

—, green grasses, milking
cows, effect (HART,
STEENBOCK, HOPPERT,
and HUMPHREY)

1923-24, 58, 43

—, hay and calcium
phosphate (bone meal),
milking cows, effect
(HART, STEENBOCK,
HOPPERT, BETHEKE, and
HUMPHREY)

1922, 54, 75

—, —, milking cows, effect
(HART, STEENBOCK,
HOPPERT, BETHKE, and
HUMPHREY)

1922, 54, 75

—, light effect, lactating
animals (HART, STEEN-
BOCK, and ELVEHJEM)

1924-25, 62, 117

Bile salt metabolism, bile
fistula, influence (SMYTH
and WHIPPLE)

1924, 59, 623

Blood, compounds (BUELL)
1923, 56, 97

—, determination, colori-
metric, molybdic oxide
(ROE, IRISH, and BOYD)
1926, 67, 579

— serum, chicks (ACKER-
SON, BLISH, and MUS-
SEHL) 1925, 63, 75

Phosphorus—continued:

Blood determination,
fracture union, concen-
tration (MOORHEAD,
SCHMITZ, CUTTER, and
MYERS)

1923, 55, xiii

—, rickets, chicks
(ACKERSON, BLISH, and
MUSSEHL)

1925, 63, 75

Body, age relation (SHER-
MAN and QUINN)

1926, 67, xxxiii, 667

—, food relation (SHER-
MAN and QUINN)

1926, 67, xxxiii, 667

—, growth relation (SHER-
MAN and QUINN)

1926, 67, xxxiii, 667

Bone, growth (HAMMETT)

1925, 64, 685

—, —, parathyroid gland
rôle (HAMMETT)

1927, 72, 527

—, —, thyroid gland rôle
(HAMMETT)

1927, 72, 527

Determination, animal
substances (DIENES)

1924, 61, 77

—, blood, total (ROE)

1926, 67, xv

—, colorimetric (FISKE and
SUBBAROW)

1925, 66, 375

—, —, molybdic oxide,
blood (ROE, IRISH, and
BOYD)

1926, 67, 579

Distribution, rickets
(McCANN and BARNETT)

1922, 54, 203

Excretion, calcium chlo-
ride and sodium phos-
phate injection effect
(GREENWALD and
GROSS)

1925, 66, 201

Phosphorus—continued:

Excretion, calcium chloride
injection effect (GREEN-
WALD and GROSS)

1925, 66, 201

—, feces, potassium influ-
ence (MILLER)

1926, 70, 593

—, parathyroid extract
effect (GREENWALD and
GROSS)

1925, 66, 217

1926, 68, 325

—, potassium influence
(MILLER)

1926, 67, 71

—, sodium phosphate in-
jection effect (GREEN-
WALD and GROSS)

1925, 66, 201

—, thyroparathyroidec-
tomy effect (GREEN-
WALD and GROSS)

1925, 66, 185

—, urine, potassium influ-
ence (MILLER)

1926, 70, 593

Fat-soluble vitamin and,
blood composition, rela-
tion (BETHKE, STEEN-
BOCK, and NELSON)

1923-24, 58, 71

— — —, bone composition,
relation (BETHKE,
STEENBOCK, and
NELSON)

1923-24, 58, 71

— — —, growth relation
(BETHKE, STEENBOCK,
and NELSON)

1923-24, 58, 71

Femur ash, parathyroidec-
tomy effect (HAMMETT)

1923, 57, 285

— —, thyroparathyroidec-
tomy effect (HAMMETT)

1923, 57, 285

Phosphorus—continued:

- Humerus ash, parathyroidectomy effect (HAMMETT)
1923, 57, 285
- , thyroparathyroidectomy effect (HAMMETT)
1923, 57, 285
- Inorganic, blood, antirachitic vitamin criterion (STEENBOCK, HART, JONES, and BLACK)
1923-24, 58, 59
- , —, calcium relation (GROLLMAN)
1927, 72, 565
- , —, diet effect (DUTCHER, CREIGHTON, and ROTHROCK)
1925, 66, 401
- , —, glucose effect (KATAYAMA and KILLIAN)
1926-27, 71, 707
- , —, infant (ROSE, RIESENFELD, and HANDLEMAN)
1925, 63, xlii
- , —, insulin and glucose effect (KATAYAMA and KILLIAN)
1926-27, 71, 707
- , —, — effect (KATAYAMA and KILLIAN)
1926-27, 71, 707
- , —, irradiated rachitic diet, effect (DUTCHER, CREIGHTON, and ROTHROCK)
1925, 66, 401
- , —, rachitic diet effect (DUTCHER, CREIGHTON, and ROTHROCK)
1925, 66, 401
- , —, plasma (TOLSTOI)
1923, 55, 157
- , —, serum (TOLSTOI)
1923, 55, 157

Phosphorus—continued:

- Inorganic, blood serum, fasting effect (CAVINS)
1924, 59, 237
- , —, fracture healing relation (EDDY and HEFT)
1923, 55, xii
- , —, molybdc method (BENEDICT and THEIS)
1924, 61, 63
- , —, rickets, fasting effect (CAVINS)
1924, 59, 237
- Intestine, antirachitic vitamin effect (YODER)
1927, 74, 321
- Lipoid, blood (BAUMANN and HOLLY)
1923, 55, 457
- , —, suprarenalectomy effect (BAUMANN and HOLLY)
1923, 55, 457
- , determination, blood (WHITEHORN)
1924-25, 62, 133
- (ROE) 1926, 67, xv
- , —, plasma (WHITEHORN)
1924-25, 62, 133
- Low, calcium-high diets, rickets, metabolism effect (KARELITZ and SHOHL)
1927, 73, 655
- Metabolism (MEDES)
1926, 67, xxxii
- , childhood (SHERMAN and HAWLEY)
1922, 53, 375
- , clover and alfalfa hay, dairy cows, effect (TURNER, HARDING, and HARTMAN)
1927, 74, xxvii

Phosphorus—continued:

Metabolism, cod liver oil
influence (SJOLLEMA)

1923, 57, 255

—, crude fiber influence
(SJOLLEMA)

1923, 57, 271

—, dairy cows (MEIGS and
TURNER)

1925, 63, xxix

II (TURNER, HARDING,
and HARTMAN)

1927, 74, xxvii

—, insulin effect (BLATH-
ERWICK, BELL, and
HILL)

1924, 59, xxxv

1924, 61, 241

—, protein influence (SJOL-
LEMA)

1923, 57, 271

—, rickets, restricted food
intakes (SHOHL and BEN-
NETT)

1927, 74, 247

—, thyroparathyroidec-
tomy, calcium salts
administration effect
(GREENWALD)

1926, 67, 1

—, —, sodium phosphate
administration effect
(GREENWALD)

1926, 67, 1

—, ultra-violet light, milk-
ing cows, influence
(HART, STEENBOCK,
SCOTT, and HUMPHREY)

1927, 73, 59

Milk, compounds, solu-
bility, heat effect (BELL)

1925, 64, 391

—, evaporated and pasteur-
ized, as source, compari-
son (WILLARD and
BLUNT)

1927, 75, 251

Phosphorus—continued:

Milk, human and cow
(LENSTRUP)

1926, 70, 193

—, total, human and cow
(HESS and HELMAN)

1925, 64, 781

Organic, determination
(BAUMANN)

1924, 59, 667

—, —, gravimetric (JONES
and PERKINS)

1923, 55, 343

—, —, urine (YOUNGBURG
and PUCHER)

1924-25, 62, 31

—, urine (YOUNGBURG and
PUCHER)

1924-25, 62, 31

Phosphate-, determination,
ceruleomolybdate (GIL-
BERT and SMITH)

1927, 74, 223

Poisoning, carbohydrate
tolerance, effect (BODAN-
SKY)

1923-24, 58, 515

Retention, orange juice
effect, children (CHANEY
and BLUNT)

1925, 66, 829

1926, 67, xxxi

Rickets, distribution
(McCANN and BARNETT)

1922, 54, 203

Total, blood, determina-
tion (ROE)

1926, 67, xv

Utilization, vegetables, by
man (BLATHERWICK and
LONG)

1922, 52, 125

Photosynthesis:

Vitamin A, relation (WIL-
SON)

1922, 51, 455

Physiological observations:

Series, adequate (SCOTT)

1927, 73, 81

Phytosterol:

- Irradiated, absorption spectra (HESS and WEINSTOCK) 1925, 64, 193
- , antirachitic value. I (HESS, WEINSTOCK, and HELMAN) 1925, 63, 305
- II (HESS and WEINSTOCK) 1925, 64, 181
- III (HESS and WEINSTOCK) 1925, 64, 193
- IV (HESS, WEINSTOCK, and SHERMAN) 1925, 66, 145
- V (HESS, WEINSTOCK, and SHERMAN) 1926, 67, 413
- VII (HESS and SHERMAN) 1927, 73, 145
- VIII (HESS and ANDERSON) 1927, 74, 651
- , biological activity, change (HESS and WEINSTOCK) 1925, 64, 181
- , changes (HESS, WEINSTOCK, and SHERMAN) 1926, 67, 413
- Pollen, corn, White Flint (ANDERSON) 1923, 55, 611

Picrate:

- Urine, normal, nature, Findlay and Sharpe method (WHITE) 1926-27, 71, 419

Picric acid:

- Purification, creatinine determination (BENEDICT) 1922, 54, 239

Pigment:

- Bile, hydrogen dioxide action (VON OETTINGEN and SOLLMANN) 1927, 72, 635

Pigment—continued:

- Bile, mercuric chloride action (VON OETTINGEN and SOLLMANN) 1927, 72, 635
- , oxidation (BARRY and LEVINE) 1924, 59, lii
- , reduction (BARRY and LEVINE) 1924, 59, lii
- Blood, oxygen capacity, nitrobenzene effect (STIMSON) 1927, 75, 741
- , — —, splenectomy effect (STIMSON) 1927, 75, 95
- Flavone-like, coloration cause, hemipterous families (PALMER and KNIGHT) 1924, 59, 451
- Grape, chemistry (ANDERSON) 1923, 57, 795
- II (ANDERSON and NABENHAUER) 1924, 61, 97
- III (ANDERSON) 1924, 61, 685
- Maize, Mendelian color types (SANDO and BARTLETT) 1922, 54, 629
- Plant, yellow, fat-soluble vitamin (STEENBOCK and SELL) 1922, 51, 63
- Urine, normal (DRABKIN) 1926, 67, xi
- I (DRABKIN) 1927, 75, 443
- II (DRABKIN) 1927, 75, 481
- , —, extraction (DRABKIN) 1927, 74, xv
- , —, output, basal metabolism relationship (DRABKIN) 1927, 75, 481

Pigment—continued:

Urine, output, diet relationship (DRABKIN)

1927, 75, 443

—, —, metabolism relationship (DRABKIN)

1927, 75, 443

Pilocarpine:

Bile salt metabolism, influence (SMYTH and WHIPPLE)

1924, 59, 655

Blood concentration, effect (UNDERHILL and ROTH)

1922, 54, 607

Lymph, mineral metabolism, effect (PETERSEN and HUGHES)

1925, 66, 229

Pisum sativum:

See Pea, field.

Pituitary:

Posterior, ablation effect (FOSTER and SMITH)

1926, 67, xxix

Pituitrin:

Lymph, mineral metabolism, effect (PETERSEN and HUGHES)

1925, 66, 229

Placenta:

Alcohol content (McNALLY, EMBREE, and RUST)

1927, 74, 219

Transmission, I (BOGERT and PLASS)

1923, 56, 297

II (PLASS and TOMPKINS)

1923, 56, 309

Plant:

Chlorophyll-free, water-soluble B, antineuritic substance (ORTON, McCOLLUM, and SIMMONDS)

1922, 53, 1

Enzymes, ion activation (DOBY and HIBBARD)

1927, 73, 405

Plant—continued:

Fats, dihydrositosterol distribution (ANDERSON, NABENHAUER, and SHRINER)

1926-27, 71, 389

Hormone, glucokinin (COLLIP)

1923, 56, 513

Ions, nutrient (DOBY and HIBBARD)

1927, 73, 405

Material, manganese (LINDOW and PETERSON)

1927, 75, 169

Nitrogen, nitrate, determination (BURRELL and PHILLIPS)

1925, 65, 229

Nucleic acid, nitrogenous groups (JONES and PERKINS)

1924-25, 62, 557

Nucleoside, dissociation constant, nucleic acid structure, relation (LEVENE and SIMMS)

1925, 65, 519

Nucleotide, animal tissue, occurrence (JONES and PERKINS)

1924-25, 62, 291

—, dissociation constant, nucleic acid structure, relation (LEVENE and SIMMS)

1925, 65, 519

Phosphatides, I (LEVENE and ROLF)

1924-25, 62, 759

II (LEVENE and ROLF)

1926, 68, 285

Pigment, yellow, fat-soluble vitamin (STEINBOCK and SELL)

1922, 51, 63

Plant—continued:

Sterols, reduction products
(ANDERSON and
SHRINER)

1926-27, 71, 401

Tissue, ash, nutritional
anemia, corrective
(HART, ELVEHJEM, WAD-
DELL, and HERRIN)

1927, 72, 299

— extracts, florid rickets,
effect (SHIPLEY, KIN-
NEY, and McCOLLUM)

1924, 59, 165

—, green, vitamin A
(QUINN, BURTIS, and
MILNER)

1927, 72, 557

—, —, — B (QUINN,
BURTIS, and MILNER)

1927, 72, 557

—, —, — C (QUINN,
BURTIS, and MILNER)

1927, 72, 557

—, greenness, vitamin A
association. I (DYE,
MEDLOCK, and CRIST)

1927, 74, 95

—, vitamin A formation,
heat influence (COWARD)

1927, 72, 781

—, — —, light influence
(COWARD)

1927, 72, 781

Vitamin A, photosynthesis,
relation (WILSON)

1922, 51, 455

Plasma:

Blood. *See* Blood plasma.

Plastein:

Nutritive value (BEARD)

1926-27, 71, 477

Pneumococcus:

Specific substance, soluble.

IV (HEIDELBERGER and
GOEBEL)

1926, 70, 613

Pneumococcus—continued:

Specific substance, soluble.

V (HEIDELBERGER and
GOEBEL)

1927, 74, 613

Type III, specific polysac-
charide (HEIDELBERGER
and GOEBEL)

1926, 70, 613

— —, — —, aldobionic
acid from (HEIDEL-
BERGER and GOEBEL)

1927, 74, 613

Poikilothermism:

Blood serum electrolytes,
different temperatures,
effect (AUSTIN, SUNDER-
MAN, and CAMACK)

1927, 72, 677

— — hydrogen ion concen-
tration, different tem-
peratures, effect (AUS-
TIN, SUNDERMAN, and
CAMACK)

1927, 72, 677

Poison:

Cardiac, structural rela-
tionship (JACOBS and
HOFFMANN)

1926, 67, 333

Poisoning:

Antimony, subacute, ni-
trogen metabolism
(PRIBYL)

1927, 74, 775

Arsenic, subacute, nitrogen
metabolism (PRIBYL)

1927, 74, 775

Chloroform, carbohydrate
tolerance effect (BODAN-
SKY)

1923-24, 58, 515

Cocaine, inorganic salt
metabolism effect
(UNDERHILL and GROSS)

1923-24, 58, 141

Poisoning—continued:

Mercuric chloride, acute,
blood changes (LOONEY)
1926, 70, 513

Phosphorus, carbohydrate
tolerance effect (BODAN-
SKY)
1923-24, 58, 515

Sodium, tetany relation
(GREENWALD)
1924, 59, 1

Pollen:

Corn. II (ANDERSON)
1923, 55, 611

Hydrocarbon, corn, White
Flint (ANDERSON)
1923, 55, 611

Lipoids, corn, White Flint
(ANDERSON)
1923, 55, 611

Phytosterol, corn, White
Flint (ANDERSON)
1923, 55, 611

Pollock:

Blood sugar, asphyxia,
changes (MENTEN)
1927, 72, 249

Polyneuritis:

Metabolism, poultry
(ANDERSON and KULP)
1922, 52, 69

Respiratory exchange,
poultry (ANDERSON and
KULP) 1922, 52, 69

Polypeptide:

Optical rotation, ionization
effect (LEVENE, BASS,
STEIGER, and BENCO-
WITZ) 1927, 72, 815

Polysaccharide:

Specific, pneumococcus
Type III (HEIDEL-
BERGER and GOEBEL)
1926, 70, 613

—, — — —, aldobionic
acid from (HEIDEL-
BERGER and GOEBEL)
1927, 74, 613

Porichthys notatus:

See Fish, California sing-
ing.

Pork:

Production, ration and sun-
light relation (STEEN-
BOCK, HART, and JONES)
1924, 61, 775

Proteins, growth value
(MITCHELL and CAR-
MAN) 1924, 60, 613
—, maintenance value
(MITCHELL and CAR-
MAN) 1924, 60, 613

Soft. I (ELLIS and HAN-
KINS) 1925, 66, 101
II (ELLIS and ISBELL)
1926, 69, 219
III (ELLIS and ISBELL)
1926, 69, 239

Potassium:

Blood cell, red (KERR)
1926, 67, 721

— cells and serum, distri-
bution between (KRA-
MER and TISDALL)
1922, 53, 241

— plasma, renal disease
(RABINOWITCH)
1924-25, 62, 667

Calcium excretion, influ-
ence (MILLER)
1926, 67, 71
1926, 70, 593

Chlorine excretion, influ-
ence (MILLER)
1926, 67, 71
1926, 70, 593

— —, urine, influence
(MILLER)
1923, 55, 45

Determination (FISKE and
LITARCZEK)
1926, 67, xvi

—, micro method, physio-
logical material (SHOHL
and BENNETT)
1927, 74, iv

Potassium—continued:

Growth effect (MILLER)
1923, 55, 61

— requirement (MILLER)
1926, 70, 587

Maintenance requirement
(MILLER)
1926, 70, 587

Nutrition. I (MILLER)
1923, 55, 45

II (MILLER)
1923, 55, 61

III (MILLER)
1926, 67, 71

IV (MILLER)
1926, 70, 587

V (MILLER)
1926, 70, 593

Phosphorus excretion, in-
fluence (MILLER)

1926, 67, 71

1926, 70, 593

Sodium excretion, influence
(MILLER)

1926, 67, 71

1926, 70, 593

— —, urine, influence
(MILLER)

1923, 55, 45

— plus, determination,
electrolytic (STODDARD)

1927, 74, 677

Potassium oxalate:

Blood electrolytes, effect
(EISENMAN)

1926-27, 71, 587

— plasma electrolytes,
effect (EISENMAN)

1926-27, 71, 587

Potato:

Starch, raw, digestibility
(LANGWORTHY and
DEUEL)

1922, 52, 251

Potential:

Electrometric reduction,
sugars (PREISLER)

1927, 74, xlviii

Potential—continued:

Oxidation-reduction, 2-oxy-
dihydroindole-3-propio-
nic acid and halogen
derivatives (KENDALL
and ORT)

1926, 68, 611

—, thyroxine-related com-
pounds (ORT)

1926, 67, x

Pregnancy:

Basal metabolism (ROWE,
ALCOTT, and MORTIMER)

1924, 59, xli

(SANDIFORD and
WHEELER)

1924-25, 62, 329

Blood calcium (UNDER-
HILL and DIMICK)

1923-24, 58, 133

— cholesterol (BAUMANN
and HOLLY)

1924, 59, xxv

— inorganic salts (UNDER-
HILL and DIMICK)

1923-24, 58, 133

— lipoids (TYLER and
UNDERHILL)

1925, 66, 1

— phosphatides (BAU-
MANN and HOLLY)

1924, 59, xxv

— plasma, protein frac-
tions (HOWE and
SANDERSON)

1924-25, 62, 767

Carbon dioxide, alveolar,
tension changes (ROWE)

1923, 55, xxviii

Hydroplasmia, blood
plasma protein as index
(PLASS and BOGERT)

1924, 59, xxiv

Ketogenesis threshold
(HARDING, ALLIN,
EAGLES, and VAN
WYCK)

1925, 63, xlix

Pregnancy—continued:

Ketosis (HARDING and ALLIN)

1926, 69, 133

Metabolism. I (ROWE)

1923, 55, xxviii

II (ROWE, ALCOTT, and MORTIMER)

1924, 59, xli

Prolamin:

Bran, wheat (JONES and GERSDORFF)

1923-24, 58, 117

Mixed solvents, behavior.

II (DILL)

1927, 72, 239

III (GOTTENBERG and ALSBERG)

1927, 73, 581

Proline:

Growth effect (SURE)

1924, 59, 577

—, indispensability (SURE)

1924, 59, xv

Propionic acid:

Lactose fermentation (SHERMAN and SHAW)

1923, 56, 695

2-Oxydihydroindole-3-, and halogen derivatives, oxidation-reduction potentials (KENDALL and ORT)

1926, 68, 611

α -Sulfo-, optical rotation (LEVENE and MIKESKA)

1924, 60, 1

Propylene glycol:

β -Hydroxybutyric acid, configurational relationship (LEVENE and WALTI)

1926, 68, 415

Lactic acid conversion to (LEVENE and HALLER)

1926, 67, 329

Propylene oxide:

Ammonia action on (LEVENE and WALTI)

1926-27, 71, 461

Condensation products (LEVENE and WALTI)

1927, 75, 325

Optically active, hydrolysis mechanism (LEVENE and WALTI)

1927, 73, 263

Protamine:

Amino acids, sardine (DUNN)

1926, 70, 697

Nitrogen distribution, sardine (DUNN)

1926, 70, 697

Protease:

Action, beef tissues (FALK, NOYES, and SUGIURA)

1924, 59, 213

—, Flexner-Jobling carcinoma (FALK, NOYES, and SUGIURA)

1924, 59, 183

—, hydrogen ion concentration, tumor extracts (FALK, NOYES, and SUGIURA)

1922, 53, 75

—, rat tissue (FALK, NOYES, and SUGIURA)

1924, 59, 183

Autolytic, pepsin, relation (BAERNSTEIN and BRADLEY)

1926, 67, xiv

Protein(s):

VIII (JOHNSON and DASCHAVSKY)

1924-25, 62, 197

Adsorbed substances, liberation. II (ROSENTHAL)

1926, 70, 129

Protein(s)—continued:

Alcohol-soluble, polished
rice, isolation (HOFF-
MAN) 1925, 66, 501

—, vegetable, immuno-
logical properties. IX
(LEWIS and WELLS)
1925, 66, 37

Alfalfa leaves (CHIBNALL
and NOLAN)
1924-25, 62, 173

Alkali-soluble, tubercle
bacillus (COGHILL)
1926, 70, 449

Amino acid, sulfur-contain-
ing, hydrolysate (MUEL-
LER) 1923, 56, 157
II (MUELLER)

1923-24, 58, 373
— acids and, specific
dynamic action, inter-
relations (WEISS and
RAPPORT)

1924, 60, 513
— nitrogen, free, deter-
mination (WILSON)
1923, 56, 191

Aspartic acid determina-
tion (JONES and MOEL-
LER) 1927, 74, liv

Autolysis inhibition
(HERTZMAN and BRAD-
LEY)

1925, 63, xxxvii
Bark, locust (JONES and
GERSDORFF)

1925, 63, xlv
I (JONES, GERSDORFF,
and MOELLER)
1925, 64, 655

—, —, enzymes (JONES,
GERSDORFF, and MOEL-
LER) 1925, 64, 655

Basic. I (DUNN)
1926, 70, 697

Bean, adzuki (JONES,
FINKS, and GERSDORFF)
1922, 51, 103

Protein(s)—continued:

Bean, jack, urease (SUMNER,
GRAHAM, and NOBACK)
1924, 59, xx

—, Lima (JONES, GERS-
DORFF, JOHNS, and
FINKS)
1922, 53, 231

—, soy, curd, maintenance
value (ROSE and MAC-
LEOD)

1925, 66, 847
—, —, nitrogen distribu-
tion, sodium hydroxide-
extracted (FRIEDEMANN)

1922, 51, 17
—, velvet, nutrition value
(JONES, FINKS, and
WATERMAN)

1922, 52, 209
Bence-Jones, spontaneous
crystallization (WILSON)

1923, 56, 203
Benzoic acid administra-
tion with (CSONKA)

1924, 60, 545
Bile (LOGAN)
1923-24, 58, 17

Biological reactions, vege-
table (LEWIS and
WELLS)

1925, 66, 37
— value, determination
(MITCHELL)

1923-24, 58, 873
— —, different intake
levels (MITCHELL)

1923-24, 58, 905
Blood, age effect (HOWE)
1922, 53, 479

—, anemia, distribution
(BODANSKY, MORSE,
KIECH, and BRAMKAMP)

1927, 74, 463
—, inorganic bases,
Bright's disease, relation
(SALVESEN and LINDER)

1923-24, 58, 617

Protein(s)—continued:

- Blood, inorganic bases, heart failure, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , — phosphates, Bright's disease, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, heart failure, relation (SALVESEN and LINDER) 1923-24, 58, 617
- plasma (MATTHEW) 1927, 74, 557
- , abortion (HOWE and SANDERSON) 1924-25, 62, 767
- and synovial fluid (FREMONT-SMITH and DAILEY) 1926, 70, 779
- , anhydremia (BODANSKY) 1926, 67, xxxviii
- , determination, colorimetric (WU) 1922, 51, 33
- , hydroplasmia index, pregnancy (PLASS and BOGERT) 1924, 59, xxiv
- serum, calcium and, parathyroid tetany, relation (SALVESEN and LINDER) 1923-24, 58, 635
- conductivity, correction (GRAM and CULLEN) 1923, 57, 477
- , influence (ATCHLEY and NICHOLS) 1925, 65, 729
- , determination, refractometric (NEUHAUSEN and RROCH) 1923, 55, 353

Protein(s)—continued:

- Blood serum, formalized, changes (HENLEY) 1923, 57, 139
- , —, osmotic pressure regulation, effect (GRAM) 1923, 56, 593
- , —, rickets, cod liver oil feeding effect (ÉDERER) 1924, 60, 621
- Body fluids, inorganic bases, Bright's disease, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, heart failure, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , — phosphates, Bright's disease, relation (SALVESEN and LINDER) 1923-24, 58, 617
- , —, heart failure, relation (SALVESEN and LINDER) 1923-24, 58, 617
- Bread and milk, maintenance value (ROSE and MACLEOD) 1925, 66, 847
- Calcium and, blood serum, parathyroid tetany, relation (SALVESEN and LINDER) 1923-24, 58, 635
- metabolism, influence (STOLLEMA) 1923, 57, 271
- phosphate solubility, influence (CSAPO) 1927, 75, 509
- Calories, graphic representation (DU BOIS) 1924, 59, 43

Protein(s)—*continued*:

- Cantaloupe seed (JONES and GERSDORFF) 1923, 56, 79
- Catabolism, histamine effect (HILLER) 1926, 68, 847
- Cauliflower bud (McKEE and SMITH) 1926, 70, 273
- Cerebrospinal fluid, determination (LING) 1926, 69, 397
- , typhus fever, increase (LING) 1926, 69, 397
- Chocolate, dietary value (MITCHELL, BEADLES, and KEITH) 1926-27, 71, 15
- Coagulated, solubility (WELLS and LEWIS) 1924, 59, iii
- Coagulation, reversibility (ANSON and MIRSKY) 1927, 74, lvii
- Cocoa, dietary value (MITCHELL, BEADLES, and KEITH) 1926-27, 71, 15
- Coconut, nitrogen distribution, sodium hydroxide-extracted (FRIEDEMANN) 1922, 51, 17
- Colostrum, determination (HOWE) 1922, 52, 51
- , differential precipitation (HOWE) 1922, 52, 51
- Containing mixtures, tyramine determination (HANKS) 1925, 66, 475
- Copper, determination (HENDRIX) 1927, 74, vii

Protein(s)—*continued*:

- Corn, *Zea mays*, leaves (CHIBNALL and NOLAN) 1924-25, 62, 179
- Corn-meal in combinations, efficiency (MAYNARD, FRONDA, and CHEN) 1923, 55, 145
- Cottonseed (JONES and CSONKA) 1925, 64, 673
- meal, nitrogen distribution, sodium hydroxide-extracted (FRIEDEMANN) 1922, 51, 17
- Cystine (JONES, GERSDORFF, and MOELLER) 1924-25, 62, 183
- , determination, colorimetric (FOLIN and LOONEY) 1922, 51, 421
- II (LOONEY) 1926, 69, 519
- Deposit, thyroxine effect (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY) 1926, 67, xxiii
- Determination, cerebrospinal fluid (LING) 1926, 69, 397
- , colorimetric, blood plasma (WU) 1922, 51, 33
- , colostrum (HOWE) 1922, 52, 51
- , Hahn method (SEIBERT) 1926, 70, 265
- , refractometric, blood serum (NEUHAUSEN and RIOCH) 1923, 55, 353
- Digestibility and isoelectric point (HEITZMAN and BRADLEY) 1924, 59, xix

Protein(s)—continued:

- Digestibility *in vitro*. III
(JONES and WATERMAN)
1922, 52, 357
- IV (JONES and WATERMAN)
1923, 56, 501
- Digestion, peptic-tryptic,
gossypol effect (JONES
and WATERMAN)
1923, 56, 501
- Dye-, aggregates (SHACKELL)
1924 59, lv
- I (SHACKELL)
1923, 55, xxxiii
1923, 56, 887
- Dyes, acid, combination
(CHAPMAN, GREENBERG,
and SCHMIDT)
1927, 72, 707
- (GORTNER)
1927, 74, 409
- Egg, growth value (MITCHELL and CARMAN)
1924, 60, 613
- , maintenance value
(MITCHELL and CARMAN)
1924, 60, 613
- Enzyme synthesis. I
(WASTENEYS and BORSOOK)
1924-25, 62, 15
- II (BORSOOK and WASTENEYS)
1924-25, 62, 633
- III (WASTENEYS and BORSOOK)
1924-25, 62, 675
- IV (BORSOOK and WASTENEYS)
1925, 63, 563
- V (WASTENEYS and BORSOOK)
1925, 63, 575
- Excess in diet, kidney effect
(ADDIS, MACKAY, and MACKAY)
1926-27, 71, 139

Protein(s)—continued:

- Fat production from
(ATKINSON, RAPPORT,
and LUSK)
1922, 53, 155
- Feeding, urine nitrogen
partition products; pro-
tein-free diet (SANDIFORD,
SANDIFORD,
DEUEL, and BOOTHBY)
1926, 67, xxiv
- Free blood filtrate, di-
amino nitrogen (BLAU)
1923, 56, 867
- — filtrates, Folin-
Wu modified method
(HADEN)
1923, 56, 469
- diet, nitrogen partition
products, urine, effect
(SANDIFORD, SANDIFORD,
DEUEL, and BOOTHBY)
1926, 67, xxiv
- — — products,
urine, thyroxine effect
(SANDIFORD, SANDIFORD,
DEUEL, and BOOTHBY)
1926, 67, xxiv
- —, thyroxine effect,
deposit protein (DEUEL,
SANDIFORD, SANDIFORD,
and BOOTHBY)
1926, 67, xxiii
- Glutamic acid determina-
tion (JONES and MOEL-
LER)
1927, 74, liv
- Heart, beef, nutrition
value (MITCHELL and
BEADLES)
1926-27, 71, 429
- Heat denaturation (WU
and WU)
1925, 64, 369
- High diet, creatine-creatin-
ine excretion (HARDING
and GAEBLER)
1922, 54, 579

Protein(s)—continued:

- High diet, effect (OSBORNE, MENDEL, PARK, and WINTERNITZ)
1926-27, 71, 317
- , kidney effect (JACKSON and RIGGS)
1926, 67, 101
- Hippuric acid elimination after benzoate administration (GRIFFITH and LEWIS)
1923, 57, 697
- — synthesis after benzoate administration (GRIFFITH and LEWIS)
1923, 57, 697
- Histidine content (HANKS)
1925, 66, 489
- in, determination (HANKS)
1925, 66, 475
- Hydrolysates, fractional analysis (WASTENEYS and BORSOOK)
1924-25, 62, 1
- , hexone bases, electrolytic separation (SCHMIDT and FOSTER)
1923, 55, xvi
(FOSTER and SCHMIDT)
1923, 56, 545
- Immunological properties, alcohol-soluble, vegetable. IX (LEWIS and WELLS)
1925, 66, 37
- Intake, temperature effect (DENIS and BORGSTROM)
1924, 61, 109
- , vitamin B requirement (SHERMAN and GLOY)
1927, 74, 117
- Isoelectric point and digestibility (HERTZMAN and BRADLEY)
1924, 59, xix

Protein(s)—continued:

- Kidney, beef, nutrition value (MITCHELL and BEADLES)
1926-27, 71, 429
- Liver, beef, nutrition value (MITCHELL and BEADLES)
1926-27, 71, 429
- Meat connective tissue, nutrition value, relation (MITCHELL, BEADLES, and KRUGER)
1927, 73, 767
- , maintenance value (ROSE and MACLEOD)
1925, 66, 847
- Metabolism, temperature effect (YOUNGBURG and FINCH)
1926, 68, 335
- Milk, maintenance value (ROSE and MACLEOD)
1925, 66, 847
- , reproduction value (SURE)
1923-24, 58, 681
- Molecular weights (COHN)
1925, 63, xv
- —, minimal (COHN, HENDRY, and PRENTISS)
1925, 63, 721
- Muscle (HOWE)
1924, 61, 493
- , soluble, differential extraction (HOWE)
1924, 61, 493
- , —, precipitation (HOWE)
1924, 61, 493
- Nitrogen determination (MAIN and LOCKE)
1925, 64, 75
- distribution, coconut, sodium hydroxide-extracted (FRIEDEMANN)
1922, 51, 17

Protein(s)—continued:

Nitrogen distribution, cottonseed meal, sodium hydroxide-extracted (FRIEDEMANN)

1922, 51, 17

— —, soy bean, sodium hydroxide-extracted (FRIEDEMANN)

1922, 51, 17

Nitrous acid reaction with (LEWIS and UPDEGRAFF)

1923, 56, 405

Non-, constituents, tissues, endogenous catabolism, relation (MITCHELL, NEVENS, and KENDALL)

1922, 52, 417

—, organic constituents, blood, fish (DENIS)

1922, 54, 693

Non-cystine-, sulfur (MUELLER)

1923, 55, xv

Nutritive value, heat effect (GOLDBLATT and MORITZ)

1927, 72, 321

— —, oxidation effect (GOLDBLATT and MORITZ)

1927, 72, 321

Orange (SMITH)

1925, 63, 71

Pea, cow-, cystine nutritive properties (FINKS, JONES, and JOHNS)

1922, 52, 403

—, field, cystine nutritive properties (FINKS, JONES, and JOHNS)

1922, 52, 403

Peanut flour supplement (EDDY and ECKMAN)

1923, 55, 119

Phenol red, combination (GROLLMAN)

1925, 64, 141

Protein(s)—continued:

Phosphorus metabolism, influence (SJOLLEMA)

1923, 57, 271

Physical chemistry. V (COHN, HENDRY, and PRENTISS)

1925, 63, 721

Physicochemical method characterizing. IV (COHN)

1923, 55, xlv

V (COHN)

1924, 59, iv

VI (COHN)

1924, 59, vii

VII (COHN)

1925, 63, xv

Pork, growth value (MITCHELL and CARMAN)

1924, 60, 613

—, maintenance value (MITCHELL and CARMAN)

1924, 60, 613

Precipitants (HILLER and VAN SLYKE)

1922, 53, 253

Precipitation by tungstic acid, hydrogen ion concentration relation (MERRILL)

1924, 60, 257

—, cation influence (HOWE)

1923, 57, 241

Rice, polished, alcohol-soluble (HOFFMAN)

1925, 66, 501

Sesame seed (JONES and GERSDORFF)

1927, 75, 213

Solution, hydration, inert gases, relation (STODDARD)

1926-27, 71, 629

Solutions, activity. I (STODDARD)

1926-27, 71, 629

Protein(s)—continued:

Solutions, aqueous, filtration rate (AMBERG)

1926, 67, lx

Specific dynamic action (RAPPORT)

1924, 60, 497

— — —, amino acids and, interrelations (WEISS and RAPPORT)

1924, 60, 513

— — —, — acids, split-products, relation (RAPPORT and BEARD)

1927, 73, 299

Spinach leaves (CHIBNALL)

1924, 61, 303

Spinacin, spinach leaves (CHIBNALL)

1924, 61, 303

Split-products, metabolism effect. I (RAPPORT and BEARD)

1927, 73, 285

II (RAPPORT and BEARD)

1927, 73, 299

Sulfur. II (HOFFMAN)

1925, 65, 251

III (GORTNER and HOFFMAN)

1927, 72, 433

(ABDERHALDEN)

1927, 75, 195

(GORTNER)

1927, 75, 199

—, labile, determination, micro (MAXWELL, BISCHOFF, and BLATHERWICK)

1927, 72, 51

—, total, determination, micro (MAXWELL, BISCHOFF, and BLATHERWICK)

1927, 72, 51

Supplementary relations (MITCHELL)

1923-24, 58, 923

Protein(s)—continued:

Synthesis, pepsin concentration effect (BORSOOK and WASTENEYS)

1925, 63, 563

—, trypsin effect (WASTENEYS and BORSOOK)

1925, 63, 575

Tomato seed (JOHNS and GERSDORFF)

1922, 51, 439

Tryptophane (MAY and ROSE)

1922, 54, 213

(JONES, GERSDORFF, and MOELLER)

1924-25, 62, 183

— determination (FOLIN and CIOCALTEU)

1927, 73, 627

— —, colorimetric (FOLIN and LOONEY)

1922, 51, 421

II (LOONEY)

1926, 69, 519

Tubercle bacillus, alkali-soluble (COGHILL)

1926, 70, 449

— —, nitrogen (JOHNSON and COGHILL)

1925, 63, 225

Tyrosine (HANKS)

1925, 66, 489

— determination (HANKS)

1925, 66, 475

(FOLIN and CIOCALTEU)

1927, 73, 627

— —, colorimetric (FOLIN and LOONEY)

1922, 51, 421

(HANKS)

1927, 74, x

II (LOONEY)

1926, 69, 519

Urine, fractional precipitation (ROSE and EXTON)

1926, 67, xli

Protein(s)—continued:

- Vegetable, alcohol-soluble, immunological properties. IX (LEWIS and WELLS) 1925, 66, 37
- , biological reactions (LEWIS and WELLS) 1925, 66, 37
- Wheat bran. I (JONES and GERSDORFF) 1923-24, 58, 117
- II (JONES and GERSDORFF) 1925, 64, 241
- III (MURPHY and JONES) 1926, 69, 85
- and embryo, comparison (JONES and GERSDORFF) 1925, 64, 241
- — — endosperm, comparison (JONES and GERSDORFF) 1925, 64, 241
- —, nutritive properties (MURPHY and JONES) 1926, 69, 85
- , whole, growth value (MITCHELL and CARMAN) 1924, 60, 613
- , —, maintenance value (MITCHELL and CARMAN) 1924, 60, 613
- Proteolysis:**
- Conductivity and. I (BAERNSTEIN) 1927, 74, lviii, 351
- Protease:**
- Determination, Hahn method (SEIBERT) 1926, 70, 265
- Intoxication, bile salt metabolism influence (SMYTH and WHIPPLE) 1924, 59, 637

Protoplasm:

- Leaf cells, extraction (CHIBNALL) 1923, 55, 333

Prunes:

- Urine acidity effect (BLATHERWICK and LONG) 1923, 57, 815

Pseudomorphine:

- (BALLS) 1926-27, 71, 537
- Determination (BALLS) 1926-27, 71, 543

Ptyalin:

- Adrenalin promoter action (ROCKWOOD and KELTCH) 1926, 67, lvi

Puerperium:

- Nitrogen metabolism (HARDING and MONTGOMERY) 1927, 73, 27

Pulegone:

- Occurrence (KREMER) 1922, 52, 439

Purine:

- Histidine replacement, growth effect (COX and ROSE) 1926, 68, 769
- Metabolism. I (CHRISTMAN and ECKSTEIN) 1927, 75, 201
- , arginine relation (ROSE and COOK) 1925, 63, xvii
- , histidine relation (ROSE and COOK) 1925, 64, 325

Pus:

- Calcium determination, colorimetric, micro (KUTTNER and COHEN) 1927, 75, 517

Pus—continued:

Phosphate determination,
colorimetric, micro
(KUTTNER and COHEN)
1927, 75, 517

Putrefaction:

Intestine, intestinal reductions as measures of
(BERGEIM)

1924-25, 62, 49

Metabolism, cellular, products, influence. II
(HIJIKATA)

1922, 51, 141

Pyloric obstruction:

Acid-base equilibrium,
blood (FELTY and MURRAY)
1923, 57, 573

Chlorides, blood (FELTY and MURRAY)
1923, 57, 573

Nitrogen, non-protein,
blood (FELTY and MURRAY)
1923, 57, 573

Urea, blood (FELTY and MURRAY)
1923, 57, 573

Pyrimidine(s):

Chemistry. VI (BAU-
DISCH)
1924, 60, 155

Ionization, pyrimidine
nucleosides, chemical
structure relation
(LEVENE, BASS, and
SIMMS)

1926, 70, 229

Metabolism (WILSON)
1923, 56, 215

(DEUEL)

1924, 60, 749

Nucleosides, pyrimidine
ionization, chemical
structure relation (LE-
VENE, BASS, and SIMMS)

1926, 70, 229

Pyrimidine(s)—continued:

Phenylhydrazino deriva-
tives (LEVENE)
1925, 63, 653

Physiology (CERECEDO)
1927, 75, 661

Tuberculinic acid (JOHN-
SON and BROWN)
1922, 54, 731

L-Pyrrolidonecarboxylic acid:

Acid stability (BETHKE
and STEENBOCK)
1923-24, 58, 105

Alkali stability (BETHKE
and STEENBOCK)
1923-24, 58, 105

Metabolism (BETHKE and
STEENBOCK)
1923-24, 58, 105

Quercimeritrin:

Sunflower (SANDO)
1926, 68, 407

Quinhydrone:

Electrode, acid-base titra-
tions (LA MER and
PARSONS)
1923, 57, 613

—, alkaline solution
effect (LA MER and PAR-
SONS) 1923, 57, 613

—, hydrogen ion concen-
tration determination
(MEEKER and OSER)
1926, 67, 307

—, — — — determination,
blood (MEEKER and
OSER) 1926, 67, 307

—, — — — determination,
blood serum (CULLEN
and BILLMANN)
1925, 64, 727

—, — — — determination,
feces (ROBINSON)
1925, 66, 811

Quinhydrone—continued:

Electrode, hydrogen ion
concentration determi-
nation, urine (MEEKER
and OSER)

1926, 67, 307

Quinine:

Bile salt metabolism, nega-
tive influence (SMYTH
and WHIPPLE)

1924, 59, 655

R**Racemization:**

(LEVENE and PFALTZ)

1925, 63, 661

III (LEVENE and PFALTZ)

1926, 68, 277

IV (LEVENE and PFALTZ)

1926, 70, 219

V (LEVENE and BASS)

1927, 74, 715

Radiant energy:

Calcification, rickets-pro-
ducing ration, effect
(STEENBOCK and NEL-
SON)

1924-25, 62, 209

Xerophthalmia, influence

(POWERS, PARK, and
SIMMONDS)

1923, 55, 575

Radiation(s):

Rickets-curing, glass
screens transmitting
light (LUCE)

1926-27, 71, 187

See also Irradiation, Radi-
ant energy.

Rast:

Molecular weight deter-
mination, modification
(SMITH and YOUNG)

1927, 75, 289

Ration:

Body fat, hogs, influence
(ELLIS and ISBELL)

1926, 69, 219

Ration—continued:

Corn, sodium chloride
addition, growth effect
(MITCHELL and CAR-
MAN) 1926, 68, 165

—, — deficiency (MILLER)
1926, 70, 759

Fat-low, fat formation, pig
(ELLIS and HANKINS)

1925, 66, 101

Fat-soluble vitamin, egg
yolk, effect (BETHKE,
KENNARD, and SASSA-
MAN) 1927, 72, 695

Inorganic constituents,
ophthalmia relation
(JONES)

1927, 75, 139

Milk, fat-high, X substance
effect, sterility preven-
tion (MATILL, CARMAN,
and CLAYTON)

1924, 61, 729

—, sex glands, influence
(MATILL and CLAYTON)
1925, 63, xxvii

—, yeast addition, infer-
tility, influence (MAT-
TILL and CONGDON)
1924, 59, xii

Purified, antirachitic
properties, ultra-violet
light influence (DUTCHER
and KRUGER)

1926, 69, 277

Restricted, sunlight and,
pork production, rela-
tion (STEENBOCK, HART,
and JONES)

1924, 61, 775

Rickets-producing, radiant
energy, calcification
effect (STEENBOCK and
NELSON)

1924-25, 62, 209

Ration—continued:

Scurbutic, vitamin C, liver,
depletion (PARSONS and
REYNOLDS)

1924, 59, 731

—, —, —, persistence
(LEPKOVSKY and NEL-
SON) 1924, 59, 91

Ultra-violet light exposure,
calcifying properties
(STEENBOCK and BLACK)

1924, 61, 405

—, —, growth-promot-
ing properties (STEEN-
BOCK and BLACK)

1924, 61, 405

Vitamin A in lard and
(MALLON and CLARK)

1922, 54, 763

— C of milk and, relation
(HUGHES, FITCH, CAVE,
and RIDDELL)

1926-27, 71, 309

See also Diet, Food, Nutri-
tion.

Ray:

Gamma, cholesterol irradi-
ation (REINHARD and
BUCHWALD)

1927, 73, 383

Ultra-violet, cholesterol
ethers and esters, anti-
rachitic action (BILLS
and McDONALD)

1927, 72, 13

x-Ray. *See* Roentgen ray.

Reducing substance:

Blood (HILLER, LINDER,
and VAN SLYKE)

1925, 64, 625

—, commercial granular
glucose, ingestion effect
(WANG and FELSHER)

1924, 59, liii

Cerebrospinal fluid, insulin
effect (KASAHARA and
UETANI)

1924, 59, 433

**Reducing substance—contin-
ued:**

Urine, commercial granu-
lar glucose alcoholic
extract, effect (WANG
and FELSHER)

1924, 61, 659

—, —, —, ingestion
effect (WANG and FEL-
SHER) 1924, 59, liii

Reduction:

Biological, methylene blue
(CLARK, COHEN, and
GIBBS)

1925, 63, liv

Blood, rate (KOEHLER)

1923-24, 58, 813

—, residual (EGE)

1926, 68, 317

(VAN SLYKE and HIL-
LER) 1926, 68, 323

Glucose, renal diabetes,
optical activity, relation
(MAGERS and GIBSON)

1927, 75, 299

Non-sugar, blood (SOMO-
GYI) 1927, 75, 33

Potentials, electrometric,
sugars (PREISLER)

1927, 74, xlviii

Reduviidæ:

See Hemiptera.

Refractive index:

Blood serum, parathy-
roidectomy (HAMMETT)

1923, 55, x

—, thyroparathyroidec-
tomy (HAMMETT)

1923, 55, x

Reproduction:

-Deficient diet, skimmed
milk powder (SURE)

1927, 74, 37

—, —, —, powder, ster-
ility effect (SURE)

1926, 69, 41

Diet relation (ANDEREGG)

1924, 59, 587

Reproduction—continued:

Dietary requirements. I
(SURE)

1923-24, 58, 681

II (SURE)

1923-24, 58, 693

III (SURE)

1924-25, 62, 371

IV (SURE)

1925, 63, xxvi, 211

V (SURE)

1925, 63, lxxiv

1926, 69, 29

VI (SURE)

1926, 69, 41

VII (SURE)

1926, 69, 53

VIII (SURE)

1927, 74, 37

IX (SURE)

1927, 74, 45

X (SURE)

1927, 74, 55

XI (SURE)

1927, 74, 71

Fats, unsaturated, animal,
influence (CLAYTON)

1927, 74, lxxiv

Food, simplified, effect.

II (SHERMAN and MUHL-
FELD) 1922, 53, 41

III (SHERMAN and
CROCKER)

1922, 53, 49

IV (SHERMAN and
CAMPBELL)

1924, 59, xlv

1924, 60, 5

Foodstuffs, treatment, re-
lation (MILLER and
YATES)

1924-25, 62, 259

Milk, dry, oxidized,
potency (SUPPLEE and
Dow)

1925, 63, 103

— effect. II (MATTELL
and STONE)

1923, 55, 443

Reproduction—continued:

Milk . proteins, value
(SURE)

1923-24, 58, 681

Mollusks, Pacific coast,
reproductive system,
chemical study (AL-
BRECHT)

1923, 56, 483

Vitamin (SURE)

1923-24, 58, 693

—, corn, yellow (SURE)

1924-25, 62, 371

— E, evidence (SURE)

1925, 63, xxvi

— —, milk diet (MATTELL
and CLAYTON)

1926, 67, xlix

1926, 68, 665

— — solubility (SURE)

1925, 63, 211

— —, synthetic diet (MAT-
TELL and CLAYTON)

1926, 67, xlix

1926, 68, 665

— —, vegetable oils, distri-
bution (SURE)

1925, 63, lxxiv

—, hemp-seed (SURE)

1924-25, 62, 371

—, wheat embryo (SURE)

1924-25, 62, 371

Respiration:

Air, oxygen determination
(SHEAFF)

1922, 52, 35

Apparatus, chamber, gas
analysis apparatus for
(CARPENTER)

1923, 55, xix

—, small animals (FOSTER
and SUNDSTROM)

1926, 69, 565

Blood plasma bicarbonate
ion, influence (MURRAY
and HASTINGS)

1925, 65, 265

Respiration—continued:

Blood plasma carbon dioxide, influence (MURRAY and HASTINGS)

1925, 65, 265

— — carbonate ion, influence (MURRAY and HASTINGS)

1925, 65, 265

— — hydrogen ion, influence (MURRAY and HASTINGS)

1925, 65, 265

Exercise, heavy, effect. I (LUNDSGAARD and MÖLLER)

1923, 55, 315

II (LUNDSGAARD and MÖLLER)

1923, 55, 477

III (LUNDSGAARD and MÖLLER)

1923, 55, 599

Respiratory exchange:

Blood, nephritis, chronic, terminal (HENDERSON, BOCK, DILL, HURXTHAL, and VAN CAULAERT)

1927, 75, 305

—, work effect (BOCK, DILL, HURXTHAL, LAWRENCE, COOLIDGE, DAILEY, and HENDERSON)

1927, 73, 749

Determination, ether narcosis (KRUSE)

1923, 56, 139

Diabetes (RICHARDSON and LADD)

1923-24, 58, 931

Fasting, insulin effect (CHAIKOFF and MACLEOD)

1927, 73, 725

Insulin effect (CHAIKOFF and MACLEOD)

1927, 73, 725

Respiratory exchange—continued:

Polyneuritis (ANDERSON and KULP)

1922, 52, 69

Vitamin starvation, poultry (ANDERSON and KULP)

1922, 52, 69

Respiratory gases:

Blood density, effect (HAMILTON and BARBOUR)

1927, 74, 553

Respiratory metabolism:

Benzoic acid influence (RAPPORT, WEISS, and CSONKA)

1924, 60, 583

Carbohydrate effect (DEUEL)

1927, 75, 367

Diabetes, phlorhizin, glucose effect (WIERZUCHOWSKI)

1926, 68, 385

Food influence (RAPPORT, WEISS, and CSONKA)

1924, 60, 583

Glycylglycine influence (PLUMMER, DEUEL, and LUSK)

1926, 69, 339

Insulin effect (BOOTHBY and WEISS)

1925, 63, p. 1

Respiratory quotient:

Apparatus, small animals (WESSON)

1927, 73, 499

Diabetes, exercise effect (RICHARDSON and LEVINE)

1925, 66, 161

Graphic representation (DU BOIS)

1924, 59, 43

Insulin effect (HAWLEY and MURLIN)

1924, 59, xxxii

Respiratory quotient—continued:

Pancreatectomy, pancreatic perfusate influence (CLOUGH, STOKES, GIBBS, STONE, and MURLIN) 1923, 55, xxx

Retention:

Acute, blood non-protein nitrogenous constituents in relation to (PLASS) 1923, 56, 17

—, — plasma non-protein nitrogenous constituents in relation to (PLASS) 1923, 56, 17

Amino acids, urea formation (FOLIN and BERGLUND) 1922, 51, 395

Calcium, orange juice effect, children (CHANEY and BLUNT) 1925, 66, 829
1926, 67, xxxi

Carbohydrates (FOLIN and BERGLUND) 1922, 51, 213

Magnesium, orange juice effect, children (CHANEY and BLUNT) 1925, 66, 829
1926, 67, xxxi

Nitrogen, orange juice effect, children (CHANEY and BLUNT) 1925, 66, 829
1926, 67, xxxi

Phosphorus, orange juice effect, children (CHANEY and BLUNT) 1925, 66, 829
1926, 67, xxxi

Uric acid, during fasting (LENNOX) 1925, 66, 521

Rhinorrhea:

Cerebrospinal, blood sugar curves, glucose ingestion (GIBSON and DULANEY) 1926, 67, lxi
— fluid sugar curves, glucose ingestion (GIBSON and DULANEY) 1926, 67, lxi

Rice:

Bran, protein efficiency with corn-meal (MAYNARD, FRONDA, and CHEN) 1923, 55, 145

Oryza sativa, globulins (JONES and GERSDORFF) 1927, 74, 415

—, glutelin (JONES and CSONKA) 1927, 74, 427

Polishings, vitamins extracted from (FUNK, HARROW, and PATON) 1923, 57, 153

Protein, alcohol-soluble, isolation from polished (HOFFMAN) 1925, 66, 501

Starch, raw, digestibility (LANGWORTHY and DEUEL) 1922, 52, 251

Rickets:

XVI (McCOLLUM, SIMMONDS, SHIPLEY, and PARK) 1922, 51, 41

XXI (McCOLLUM, SIMMONDS, BECKER, and SHIPLEY) 1922, 53, 293

IX (McCANN and BARNETT) 1922, 54, 203

XXIII (McCOLLUM, SIMMONDS, BECKER, and SHIPLEY) 1922, 54, 249

Rickets—continued:

XXIV (SHIPLEY, KINNEY,
and McCOLLUM)

1924, 59, 165

XXV (SHIPLEY, KINNEY,
and McCOLLUM)

1924, 59, 177

XXVI (McCOLLUM, SIM-
MONDS, BECKER, and
SHIPLEY)

1925, 65, 97

XXVII (McCOLLUM, SIM-
MONDS, BECKER, and
SHIPLEY)

1926, 70, 437

I (KARELITZ and SHOHL)

1927, 73, 655

II (KARELITZ and SHOHL)

1927, 73, 665

III (SHOHL and BENNETT)

1927, 74, 247

Alkaline reserve, blood
serum, chicks (ACKER-
SON, BLISH, and MUS-
SEHL)

1925, 63, 75

Antirachitic activation,
light (STEENBOCK,
BLACK, NELSON, NEL-
SON, and HOPPERT)

1925, 63, xxv

— —, ultra-violet irradi-
ation (HESS and WEIN-
STOCK)

1925, 63, xxv

— cholesterol derivative,
formation (BILLS)

1926, 67, 753

— effect, oils (SHIPLEY,
KINNEY, and McCOL-
LUM)

1924, 59, 177

— —, ultra-violet irradi-
ation (STEENBOCK,
HART, RUSING, and
HOPPERT)

1927, 74, lxxiii

Rickets—continued:

Antirachitic factor, cod
liver oil, destruction,
ground grains (HART,
STEENBOCK, and LEP-
KOVSKY)

1925, 65, 571

— property, green vege-
tables, ultra-violet ir-
radiation (HESS and
WEINSTOCK)

1924-25, 62, 301

— —, hay, climatic condi-
tions, relation (STEEN-
BOCK, HART, ELVEHJEM,
and KLETZIEN)

1925, 66, 425

— —, —, ultra-violet light
irradiation (STEENBOCK,
HART, ELVEHJEM, and
KLETZIEN)

1925, 66, 425

— —, inert fluids, ultra-
violet irradiation (HESS
and WEINSTOCK)

1924-25, 62, 301

— —, — substances,
ultra-violet irradiation,
(HESS and WEINSTOCK)

1925, 63, 297

— —, lipoids (KOCH,
CAHAN, and GUSTAVSON)

1926, 67, lii

— —, milk (STEENBOCK,
HART, HOPPERT, and
BLACK)

1925, 66, 441

— —, —, animal irradi-
ation effect (STEENBOCK,
HART, HOPPERT, and
BLACK)

1925, 66, 441

— —, —, dry, irradiated
and non-irradiated, sum-
mer- and winter-pro-
duced (SUPPLEE and
Dow)

1927, 73, 617

Rickets—continued:

- Antirachitic property, milk, irradiated (STEENBOCK, HART, HOPPERT, and BLACK) 1925, 66, 441
- —, purified rations, ultra-violet light influence (DUTCHER and KRUGER) 1926, 69, 277
- substance, cod liver oil, resistance to reagents (BILLS) 1925, 64, 1
- substances. II (BILLS) 1925, 66, 451
- III (BILLS) 1926, 67, 753
- IV (BILLS and McDONALD) 1926, 68, 821
- V (BILLS and McDONALD) 1927, 72, 13
- VI (BILLS) 1927, 72, 751
- —, cholesterol ethers and esters, ultra-violet irradiation (BILLS and McDONALD) 1927, 72, 13
- vitamin, *n*-butyl nitrite action (BILLS) 1925, 66, 451
- —, calcium, intestinal tract, effect (YODER) 1927, 74, 321
- — criterion (STEENBOCK, HART, JONES, and BLACK) 1923-24, 58, 59
- —, eggs, hen exposed to ultra-violet light, effect (HUGHES, PAYNE, TITUS, and MOORE) 1925, 66, 595
- —, hydrogen ion concentration, intestinal tract, effect (YODER) 1927, 74, 321

Rickets—continued:

- Antirachitic vitamin, peroxidation, relation (YODER) 1926, 70, 297
- —, phosphorus, intestinal tract, effect (YODER) 1927, 74, 321
- — stability to saponification (STEENBOCK, JONES, and HART) 1923-24, 58, 383
- Blood inorganic phosphorus, irradiated rachitic diet (DUTCHER, CREIGHTON, and ROTHROCK) 1925, 66, 401
- — —, rachitic diet (DUTCHER, CREIGHTON, and ROTHROCK) 1925, 66, 401
- serum calcium, chicks (ACKERSON, BLISH, and MUSSEHL) 1925, 63, 75
- — —, fasting effect (CAVINS) 1924, 59, 237
- — inorganic phosphorus, fasting effect (CAVINS) 1924, 59, 237
- — phosphorus, chicks (ACKERSON, BLISH, and MUSSEHL) 1925, 63, 75
- — protein, cod liver oil feeding effect (EDERER) 1924, 60, 621
- Bone ash, irradiated rachitic diet (DUTCHER, CREIGHTON, and ROTHROCK) 1925, 66, 401
- —, rachitic diet (DUTCHER, CREIGHTON, and ROTHROCK) 1925, 66, 401

Rickets—continued:

- Calcium deposition, bones,
hematoporphyrin effect
(VAN LEERSUM) 1923-24, 58, 835
— distribution (McCANN
and BARNETT) 1922, 54, 203
Cholesterol, irradiated,
fractions, effect
(KRAMER, SHEAR, and
SHELLING) 1926-27, 71, 221
—, —. I (HESS, WEIN-
STOCK, and HELMAN) 1925, 63, 305
II (HESS and WEIN-
STOCK) 1925, 64, 181
III (HESS and WEIN-
STOCK) 1925, 64, 193
IV (HESS, WEINSTOCK,
and SHERMAN) 1925, 66, 145
V (HESS, WEINSTOCK,
and SHERMAN) 1926, 67, 413
VI (HESS, WEINSTOCK,
and SHERMAN) 1926, 70, 123
VII (HESS and SHER-
MAN) 1927, 73, 145
VIII (HESS and ANDER-
SON) 1927, 74, 651
Cod liver oil concentrate,
effect (KRAMER,
KRAMER, SHELLING, and
SHEAR) 1926-27, 71, 699
— — — feeding, blood
serum protein (EDERER)
1924, 60, 621
— — —, relation (NELSON
and STEENBOCK)
1925, 64, 299

Rickets—continued:

- Diet, blood inorganic phos-
phorus (DUTCHER,
CREIGHTON, and ROTH-
ROCK) 1925, 66, 401
—, bone ash (DUTCHER,
CREIGHTON, and ROTH-
ROCK) 1925, 66, 401
— influence (HESS, WEIN-
STOCK, and TOLSTOI)
1923, 57, 731
—, irradiated, blood
inorganic phosphorus
(DUTCHER, CREIGHTON,
and ROTHROCK) 1925, 66, 401
—, —, bone ash (DUTCHER,
CREIGHTON, and ROTH-
ROCK) 1925, 66, 401
Florid, plant tissue
extracts, effect (SHIP-
LEY, KINNEY, and
McCOLLUM) 1924, 59, 165
Hematoporphyrin effect,
calcium deposition,
bones (VAN LEERSUM)
1923-24, 58, 835
Irradiated air effect
(HUGHES, NITCHER, and
TITUS) 1925, 63, 205
Leg weakness, chicks, re-
lation (PAPPENHEIMER
and DUNN) 1925, 66, 717
(HUGHES and TITUS)
1926, 69, 289
Light radiations curative
of, glass screens trans-
mitting (LUCE)
1926-27, 71, 187
Phosphate supplement
(KARELITZ and SHOHL)
1927, 73, 665

Rickets—continued:

Phosphorus distribution
(McCANN and BARNETT)
1922, 54, 203

Phytosterol, irradiated. I
(HESS, WEINSTOCK, and
HELMAN)
1925, 63, 305

II (HESS and WEIN-
STOCK) 1925, 64, 181

III (HESS and WEIN-
STOCK)
1925, 64, 193

IV (HESS, WEINSTOCK,
and SHERMAN)
1925, 66, 145

V (HESS, WEINSTOCK,
and SHERMAN)
1926, 67, 413

VII (HESS and SHER-
MAN) 1927, 73, 145

VIII (HESS and ANDER-
SON) 1927, 74, 651

-Producing ration, radiant
energy, calcification
effect (STEENBOCK and
NELSON)
1924-25, 62, 209

Purified food substances,
production (McCOLLUM,
SIMMONDS, BECKER, and
SHIPLEY)
1922, 54, 249

Ultra-violet light effect
(HUGHES, NITCHER, and
TITUS)
1925, 63, 205

Vitamin D, butter fat,
factor (McCOLLUM, SIM-
MONDS, BECKER, and
SHIPLEY)
1926, 70, 437

Rigor mortis:

Muscle, fish, changes (BEN-
SON) 1925, 63, lxxii

Robinia pseudacacia:

See Locust tree.

Roentgen ray:

Cholesterol irradiation
(REINHARD and BUCH-
WALD)
1927, 73, 383

Intoxication, bile salt
metabolism, influence
(SMYTH and WHIPPLE)
1924, 59, 637

Rotatory dispersion:

α -Glucose pentacetate
(LEVENE and BENCO-
WITZ) 1927, 74, 153

β -Glucose pentacetate
(LEVENE and BENCO-
WITZ) 1927, 74, 153

α -Mannose pentacetate
(LEVENE and BENCO-
WITZ) 1927, 74, 153

β -Mannose pentacetate
(LEVENE and BENCO-
WITZ) 1927, 74, 153

Rubidium:

Creatinine picrate (GREEN-
WALD and GROSS)
1924, 59, 613

Rubus argutus:

See Blackberry.

Rutin:

Elder flowers, isolation and
identification (SANDO
and LLOYD)
1923-24, 58, 737

Sahli:

Hemoglobinometer, per-
manent standard (HAS-
KINS) 1923, 57, 111

Saliva:

I (STARR) 1922, 54, 43

II (STARR) 1922, 54, 55

Chemical constituents
(MORRIS and WAY)
1924, 59, xxvi

Saliva—continued:

Chemical constituents,
glandular activity index
(MORRIS and JERSEY)

1923, 56, 31

— study (MORRIS and
JERSEY)

1923, 55, xviii

Hydrogen ion concentra-
tion determination
(STARR)

1922, 54, 43

(HENDERSON and MIL-
LET)

1927, 75, 559

— — — variations (STARR)

1922, 54, 55

Organic constituents
(UPDEGRAFF and LEWIS)

1924, 61, 633

Reaction changes (CLARK
and CARTER)

1927, 73, 391

Urea, determination
(SCHMITZ)

1923, 55, xliii

Salt(s):

Blood plasma, precipita-
tion (HOWE)

1923, 57, 241

— serum, precipitation
(HOWE)

1923, 57, 241

Colloids, content, electro-
motive forces, influence
(BEUTNER and MENIT-
OFF)

1927, 72, 759

Solution, Thirty-Vella
loops, effect (WHITE and
RABINOWITCH)

1927, 74, 449

Solutions, calcium carbon-
ate solubility (HASTINGS,
MURRAY, and SENDROY)

1926-27, 71, 723

—, — phosphate, tertiary,
solubility (SENDROY and
HASTINGS)

1926-27, 71, 783

Salt(s)—continued:

Urease extraction, ameba-
cytes, *Limulus* (LOEB
and BODANSKY)

1927, 72, 415

Sambucus canadensis:

See Elder.

Sapindus mukorossi utilis:

See Soapnut.

Sapindus saponaria:

See Soapnut.

Sapogenin:

Soapnuts (JACOBS)

1925, 63, 621

1925, 64, 379

Saponin(s):

I (JACOBS)

1925, 63, 621

II (JACOBS)

1925, 63, 631

III (JACOBS)

1925, 64, 379

IV (JACOBS and GUSTUS)

1926, 69, 641

Agave lechuguilla, isola-
tion from (JOHNS, CHER-
NOFF, and VIEHOEVER)

1922, 52, 335

Sardine:

Sardinia caerulea, prota-
mine, amino acids
(DUNN)

1926, 70, 697

—, —, nitrogen distribu-
tion (DUNN)

1926, 70, 697

Sardinia caerulea:

See Sardine.

Sculpin:

Blood sugar, asphyxia,
changes (MENTEN)

1927, 72, 249

Scurvy:

Antiscorbutic factor, solu-
bilities, lemon juice
(VEDDER and LAWSON)

1927, 73, 215

Scurvy—continued:

Antiscorbutic properties,
eggs (HAUGE and CARRICK)

1925, 64, 111

— requirement, rat (PARSONS and HUTTON)

1924, 59, 97

— substance, liver, scorbutic diet (CARRICK and HAUGE)

1925, 63, 115

— vitamin. I (HART, STEENBOCK, and LEPKOVSKY)

1922, 52, 241

— —, solubility, desiccated orange juice (HART, STEENBOCK, and LEPKOVSKY)

1922, 52, 241

Growth effect (ANDERSON and SMITH)

1924, 61, 181

Nutrition effect (ANDERSON and SMITH)

1924, 61, 181

— following (SMITH and ANDERSON)

1924, 59, viii

Ration, vitamin C depletion in liver (PARSONS and REYNOLDS)

1924, 59, 731

— — — persistence in liver (LEPKOVSKY and NELSON)

1924, 59, 91

Scyllitol:

Dogwood (HANN and SANDO)

1926, 68, 399

Sea urchin:

Egg, carbon dioxide effect on segmentation (CLOWES and SMITH)

1923, 55, xix

Sea-lion:

Body fluids, chemical composition (SWAIN and RAKESTRAW)

1923, 55, iv

Seasonal periodicity:

I (PUCHER)

1927, 74, xviii

Blood variations (PUCHER)

1927, 74, xviii

Secretin:

Histamine (PARSONS and KOCH)

1924, 59, xxxviii

Secretions:

Urea determination, micro (GAD-ANDRESEN)

1922, 51, 373

Seed:

Asparagus officinalis, carbohydrate (CAKE and BARTLETT)

1922, 51, 93

Cantaloupe, globulin, crystalline, isolation (JONES and GERSDORFF)

1923, 56, 79

—, proteins (JONES and GERSDORFF)

1923, 56, 79

Hemp, vitamin E (SURE)

1924-25, 62, 371

Sesame, proteins (JONES and GERSDORFF)

1927, 75, 213

Squash, globulin, crystalline (JONES and GERSDORFF)

1923, 56, 79

Tomato, proteins (JOHNS and GERSDORFF)

1922, 51, 439

Serum:

Blood. *See* Blood serum.

Sesame:

Sesamum indicum, seed,
proteins (JONES and
GERSDORFF)
1927, 75, 213

***Sesamum indicum*:**

See Sesame.

Sex glands:

Milk influence (MATTELL
and CLAYTON)
1925, 63, xxvii

Shaffer-Hartmann:

Micro sugar reagent, potas-
sium iodide effect (DE-
LONG) 1927, 72, 731

Ship-worm:

Cellulase (BOYNTON and
MILLER)
1927, 75, 613

Shrimp:

Peneus setiferus, muscle,
amino acids (JONES,
MOELLER, and GERS-
DORFF) 1925, 65, 59
—, —, nitrogen distri-
bution (JONES, MOEL-
LER, and GERSDORFF)
1925, 65, 59

Silk:

Fibroin, distillation,
destructive (JOHNSON
and DASCHAVSKY)
1924-25, 62, 197
Tyramine formation from
tyrosine of (JOHNSON
and DASCHAVSKY)
1924-25, 62, 725

Silver:

Arginine and histidine
compounds, separation,
hydrogen ion concentra-
tion effect (VICKERY and
LEAVENWORTH)
1927, 72, 403

Sitosterol:

Dihydro-, plant fats,
distribution (ANDERSON,
NABENHAUER, and
SHRINER)
1926-27, 71, 389

Skatole:

Nitrogen metabolism,
effect (UNDERHILL and
KAPSINOW)
1922, 54, 717
Tryptophane, quantitative
separation (KRAUS)
1925, 63, 157, lxv

Skeleton:

Rickets, calcium distribu-
tion (McCANN and
BARNETT)
1922, 54, 203
—, phosphorus distribution
(McCANN and BARNETT)
1922, 54, 203

Skin:

Boric acid passage by os-
mosis (KAHLENBERG)
1924-25, 62, 149
Mineral content (BROWN)
1926, 68, 729
1927, 75, 789
Water elimination, sweat
gland absence, effect
(RICHARDSON)
1926, 67, 397
See also Epidermis, Epi-
thelium, cutaneous.

Sleep:

Urine chlorides, effect
(SIMPSON)
1926, 67, 505
—, hydrogen ion concen-
tration, effect (SIMPSON)
1926, 67, 505

Snail:

Helix aspersa, mucopro-
teins (LEVENE)
1925, 65, 683

Snail—continued:

Helix pomatia, mucoproteins (LEVENE)
1925, 65, 683

Soapnut:

Sapogenin (JACOBS)
1925, 63, 621
Sapindus mukorossi utilis,
sapogenin (JACOBS)
1925, 64, 379
— *saponaria*, sapogenin
(JACOBS)
1925, 64, 379

Sodium:

Blood cells and serum,
distribution between
(KRAMER and TISDALL)
1922, 53, 241
— plasma, renal disease
(RABINOWITCH)
1924-25, 62, 667
Corn ration, deficiency
(MILLER)
1926, 70, 759
Determination, iodometric,
blood serum (KRAMER
and GITTLEMAN)
1924-25, 62, 353
—, volumetric method,
blood serum (KRAMER
and GITTLEMAN)
1924, 59, xlv
Excretion, feces, potassium
influence (MILLER)
1926, 70, 593
—, potassium influence
(MILLER)
1926, 67, 71
—, urine, potassium influ-
ence (MILLER)
1923, 55, 45
1926, 70, 593
Poisoning, tetany relation
(GREENWALD)
1924, 59, 1
Potassium plus, determina-
tion, electrolytic (STOD-
DARD) 1927, 74, 677

Sodium benzoate:

Absorption, intestine
(GRIFFITH)
1924, 59, li
Blood, ingestion effect
(SWANSON)
1924-25, 62, 565
Growth effect (GRIFFITH)
1927, 74, lkv
Urine, ingestion effect
(SWANSON)
1924-25, 62, 565

Sodium bicarbonate:

Hemoglobin and, carbon
dioxide curves, blood
(ADAIR)
1925, 63, 515

Sodium carbonate:

Yeast nucleic acid, action
(CALVERY)
1927, 72, 27

Sodium chloride:

Blood uric acid level, in-
fluence (HARDING,
ALLIN, and VAN WYCK)
1924-25, 62, 61
Corn ration addition, grow-
ing animals (MITCHELL
and CARMAN)
1926, 68, 165

Sodium fluoride:

Blood preservation (ROM,
IRISH, and BOYD)
1927, 75, 685

Sodium hippurate:

Absorption, intestine
(GRIFFITH)
1924, 59, li
Acid excretion, kidney,
following injection
(HENDRIX and SANDERS)
1923-24, 58, 503
Ammonia excretion, kid-
ney, following injection
(HENDRIX and SANDERS)
1923-24, 58, 503

Sodium hydroxide:

Asbestos and, carbon dioxide absorption, gravimetric metabolism determination (LEE and BROWN)

1927, 73, 69

Sodium ion:

Tetany cause, alkalosis, comparison (DENIS and VON MEYSENBUG)

1923, 57, 47

— production, influence (TISDALL)

1922, 54, 35

Sodium lactate:

Blood inorganic phosphate, intravenous administration, effect (RIEGEL)

1927, 74, 135

— sugar, intravenous administration, effect (RIEGEL)

1927, 74, 135

Fate, intravenous administration (RIEGEL)

1927, 74, 135

Sodium *r*-lactate:

Acid-base equilibrium, effect (ABRAMSON and EGGLETON)

1927, 75, 753

Blood sugar, effect (ABRAMSON, EGGLETON, and EGGLETON)

1927, 75, 763

Excretion, intestine (ABRAMSON and EGGLETON)

1927, 75, 745

—, kidney (ABRAMSON and EGGLETON)

1927, 75, 745

Glycogen synthesis, liver, effect (ABRAMSON, EGGLETON, and EGGLETON)

1927, 75, 763

Sodium *r*-lactate—continued:

Oxygen consumption, effect (ABRAMSON, EGGLETON, and EGGLETON)

1927, 75, 763

Utilization, intravenous. I (ABRAMSON and EGGLETON)

1927, 75, 745

II (ABRAMSON and EGGLETON)

1927, 75, 753

III (ABRAMSON, EGGLETON, and EGGLETON)

1927, 75, 763

Sodium oleate:

Non-protein nitrogen, blood filtrates, addition effect (ROSENTHAL)

1926, 70, 129

Sodium phosphate(s):

Acid excretion, kidney, following injection (HENDRIX and SANDERS)

1923-24, 58, 503

Ammonia excretion, kidney, following injection (HENDRIX and SANDERS)

1923-24, 58, 503

Calcium chloride and, calcium excretion, injection effect (GREENWALD and GROSS)

1925, 66, 201

— — —, magnesium excretion, injection effect (GREENWALD and GROSS)

1925, 66, 201

— — —, phosphorus excretion, injection effect (GREENWALD and GROSS)

1925, 66, 201

Sodium phosphate(s)—continued:

Calcium excretion, injection effect (GREENWALD and GROSS)

1925, 66, 201

— metabolism, thyroparathyroidectomy, effect (GREENWALD)

1926, 67, 1

Magnesium excretion, injection effect (GREENWALD and GROSS)

1925, 66, 201

Phosphorus excretion, injection effect (GREENWALD and GROSS)

1925, 66, 201

— metabolism, thyroparathyroidectomy effect (GREENWALD)

1926, 67, 1

Sodium sulfate:

Fibrinogen determination (HOWE)

1923, 57, 235

Sodium tungstate:

Blood analysis, quality of (FOLIN)

1922, 51, 419

Solanum elaeagnifolium:

Milk-coagulating enzyme of (BODANSKY)

1924, 61, 365

Solanum esculentum:

See Tomato.

Solubility:

Calcium salts, intestinal absorption, relation (IRVING)

1926, 68, 513

Soy bean:

See Bean.

Specific dynamic action:

Amino acids and proteins, interrelations (WEISS and RAPPORT)

1924, 60, 513

Specific dynamic action—continued:

Amino acids, protein, relation (RAPPORT and BEARD)

1927, 73, 299

Gelatin hydrolysates (RAPPORT)

1926-27, 71, 75

Glucose, urethane narcosis influence (GUTTMACHER and WEISS)

1927, 72, 283

Glycocoll, urethane narcosis influence (GUTTMACHER and WEISS)

1927, 72, 283

Protein, amino acids, protein split-products, relation (RAPPORT and BEARD)

1927, 73, 299

Proteins (RAPPORT)

1924, 60, 497

— and amino acids, interrelations (WEISS and RAPPORT)

1924, 60, 513

Thermodynamic laws (ADAMS)

1926, 67, xxi

Thyroid secretion, relation (BAUMANN and HUNT)

1925, 64, 709

Specific gravity:

Blood, respiratory gases, effect (HAMILTON and BARBOUR)

1927, 74, 553

Body fluid, honey bee, larval activity, changes (BISHOP)

1923-24, 58, 543

— — —, metamorphosis, changes (BISHOP)

1923-24, 58, 543

Specific gravity—continued:

Determination, densimeter
(DU NOÛY)

1927, 74, 443

—, falling drop method
(BARBOUR and HAMIL-
TON)

1926, 69, 625

Specific rotation:

2-Aminohexonic acid (LE-
VENE)

1924, 59, 123

— —, sodium salts
(LEVENE)

1924, 59, 123

Gliadin (DILL and ALS-
BERG)

1925, 63, lxviii

—, wheat (DILL and ALS-
BERG)

1925, 65, 279

Glucose-insulin solutions
and muscle tissue, *in*
vitro (BEARD and JER-
SEY)

1926, 70, 167

Hexonic acids (LEVENE)

1924, 59, 123

— —, sodium salts
(LEVENE)

1924, 59, 123

See also Mutarotation,
Optical rotation, Rota-
tory dispersion.

Spectrophotometry:

Phenol tests (GIBBS)

1926-27, 71, 445

Sperm:

Agglutinins (CLOWES and
WALDEN)

1925, 63, lxiv

Sphingosine:

V (LEVENE and HALLER)

1925, 63, 669

Spinach:

Calcium utilization (Mc-
LAUGHLIN)

1927, 74, 455

Protein, leaves (CHIBNALL)

1924, 61, 303

Spinacin:

Protein, spinach leaves
(CHIBNALL)

1924, 61, 303

Spinal cord:

Blood calcium, section
effect (HESS, BERG, and
SHERMAN)

1927, 74, xxvii

Spleen:

Cholesterol metabolism,
relation (RANDLES and
KNUDSON)

1926, 67, xvii

Enzymes,
(HEDIN)

1922, 54, 177

Splenectomy:

Blood pigment, oxygen
capacity, effect (STIM-
SON)

1927, 75, 95

Squash:

Cucurbita maxima, seed,
globulin, crystalline
(JONES and GERSDORFF)

1923, 56, 79

Starch:

(ALSBERG and GRIFFING)

1927, 74, lxv

Adsorption (CLARK and
MANN)

1922, 52, 157

Emulsifying agent, action
as (CLARK and MANN)

1922, 52, 157

Grains, grinding effect
(ALSBERG and PERRY)

1925, 63, lxvi

Hydrolysis, *Aspergillus*
oryzae (MASLOW and
DAVISON)

1926, 68, 75

-Liquefying activity, amy-
lase, *Aspergillus oryzae*,
hydrogen ion concentra-
tion effect (MASLOW and
DAVISON)

1926, 68, 83

Starch—continued:

Raw, digestibility (LANG-
WORTHY and DEUEL)
1922, 52, 251

Starfish:

Asteriasterol from (PAGE)
1923, 57, 471

Stasis:

Blood plasma, acid-base
equilibrium, effect
(PETERS, BULGER,
EISENMAN, and LEE)
1926, 67, 175

Statistics:

Physiological observations
(SCOTT)
1927, 73, 81
Repeated measurements,
accuracy (KROGH)
1927, 74, 393

Stearic acid:

Fatty acids, normal, syn-
thesis, hexacosanic acid
to (LEVENE and TAYLOR)
1924, 59, 905

Sterility:

Skimmed milk powder diet
(SURE) 1926, 69, 41
X substance, milk ration,
fat-high, prevention
(MATILL, CARMAN, and
CLAYTON)
1924, 61, 729

Sterilization:

Milk, evaporated, alcohol
test (BENTON and
ALBERY)
1926, 68, 251
—, —, hydrogen ion con-
centration (BENTON and
ALBERY)
1926, 68, 251
—, —, specific buffer
addition (BENTON and
ALBERY)
1926, 68, 251

Sterilization—continued:

Milk, evaporated, stability
(BENTON and ALBERY)
1926, 68, 251

Sterol(s):

Asteriasterol, starfish
(PAGE)
1923, 57, 471
Fractions, ultra-violet
irradiation activation
(HESS and ANDERSON)
1927, 74, 651
Marine echinoderms
(PAGE)
1923, 57, 471
Metabolism, bile and fecal
lipids, relation (SPERRY)
1926-27, 71, 351
Plant, reduction products
(ANDERSON and SHRIN-
ER)
1926-27, 71, 401

Stomach:

Enzyme, acid-forming,
hydrochloric acid mech-
anism, rôle (HANKS)
1926, 67, xi
Gastric contents, hydrogen
ion concentration deter-
mination (McCLENDON)
1924, 59, 437
—, —, — concentration
determination, electro-
metric and colorimetric,
comparison (KAHN and
STOKES)
1926, 69, 75
— juice, calcium content,
parathyroid hormone
effect (AUSTIN)
1927, 74, lxiv
— collection, technique
(HOLLANDER)
1927, 74, xxiii
— secretion, mechanism
(HOLLANDER)
1927, 74, xxiii

Stomach—continued:

Gastric secretion, parathyroid hormone effect (AUSTIN)

1927, 74, lxiv

Hydrochloric acid formation, organic chlorides, tissues, relation (HANKS and DONOVAN)

1927, 74, xxiv

Strophanthidin:

(JACOBS and HEIDELBERGER) 1922, 54, 253

Anhydro- (JACOBS and COLLINS)

1924, 59, 713

—, hydrogenation (JACOBS and COLLINS)

1925, 63, 123

Carbonyl group (JACOBS and COLLINS)

1925, 65, 491

Dianhydro- (JACOBS and COLLINS)

1924, 59, 713

Double bond (JACOBS and COLLINS)

1925, 64, 383

Hydroxyl groups (JACOBS and GUSTUS)

1927, 74, 795

Iso-, derivatives (JACOBS and GUSTUS)

1927, 74, 811

—, isomerization (JACOBS and COLLINS)

1924, 61, 387

(JACOBS and GUSTUS)

1927, 74, 829

—, oxidation (JACOBS and COLLINS)

1924, 61, 387

Oxidation (JACOBS)

1923, 57, 553

Trianhydro-, oxidation (JACOBS and GUSTUS)

1927, 74, 805

Strophanthin:

I (JACOBS and HEIDELBERGER)

1922, 54, 253

II (JACOBS)

1923, 57, 553

III (JACOBS)

1923, 57, 569

IV (JACOBS and COLLINS)

1924, 59, 713

V (JACOBS and COLLINS)

1924, 61, 387

VI (JACOBS and COLLINS)

1925, 63, 123

VII (JACOBS and COLLINS)

1925, 64, 383

VIII (JACOBS and COLLINS)

1925, 65, 491

IX (JACOBS and HOFFMANN)

1926, 67, 609

X (JACOBS and HOFFMANN)

1926, 69, 153

XI (JACOBS and GUSTUS)

1927, 74, 795

XII (JACOBS and GUSTUS)

1927, 74, 805

XIII (JACOBS and GUSTUS)

1927, 74, 811

XIV (JACOBS and GUSTUS)

1927, 74, 829

Crystalline, Kombe (JACOBS)

1923, 57, 569

(JACOBS and HOFFMANN)

1926, 67, 609

Kombe (JACOBS and HOFFMANN)

1926, 69, 153

K-Strophanthin-β:

(JACOBS and HOFFMANN)

1926, 69, 153

Succinamide:

Thio-, oxidation to corresponding sulfo acid (LEVENE and MIKESKA)

1924, 60, 685

Succinic acid:

- Thio-, oxidation to corresponding sulfo acid (LEVENE and MIKESKA)
1924, 60, 685

Suckling:

- Vitamin requirements, mother. I (SURE and SCHILLING)
1927, 74, lxxiv
Young, beriberi, diets satisfactory for growth (SURE and SCHILLING)
1927, 74, lxxiv

Sucrase:

- Banana (FALK and McGUIRE)
1922, 54, 655

Sucrose:

- Determination (CAMPBELL and HANNA)
1926, 69, 703
—, iodine in (CAJORI)
1922, 54, 617
Hydrolysis, honey invertase, fructose influence (NELSON and SOTTERY)
1924-25, 62, 139
—, —, glucose influence (NELSON and SOTTERY)
1924-25, 62, 139
—, invertase, α -methylglucoside presence. I (NELSON and FREEMAN)
1925, 63, 365
II (NELSON and POST)
1926, 68, 265

Sugar(s):

- Acetone from, by *Bacillus acetoethylcum* (SPEARMAN)
1925, 64, 41
Adsorption (CLARK and MANN)
1922, 52, 157
Blood. See Blood sugar.
— serum, fasting effect (SHOPE)
1927, 75, 101

Sugar(s)—continued:

- Cane-, yeast growth-promoting vitamin in (FUNK and FREEDMAN)
1923, 56, 851
Cerebrospinal fluid, curves, cerebrospinal rhinorrhea, glucose ingestion (GIBSON and DULANEY)
1926, 67, lxi
—, Folin-Wu and Benedict methods, comparison (LYTLE and HEARN)
1926, 68, 751
Determination (SOMOGYI)
1926, 70, 599
—, blood (GILBERT and BOCK)
1924-25, 62, 361 (BENEDICT)
1925, 64, 207 (DUGGAN and SCOTT)
1926, 67, 287 (FOLIN)
1926, 67, 357 (BENEDICT)
1926, 68, 759
—, —, Folin-Wu (ROTHBERG and EVANS)
1923-24, 58, 435
—, —, total (EVERETT and SHOEMAKER)
1927, 74, vi
—, colorimetric, urine, normal (FOLIN and BERGLUND)
1922, 51, 209
—, gasometric, blood (VAN SLYKE and HAWKINS)
1927, 74, viii
—, urine (SUMNER)
1925, 65, 393 (KINGSBURY)
1927, 75, 241
—, —, diabetes (SUMNER)
1924-25, 62, 287

Sugar(s)—continued:

Determination, urine, normal (FOLIN)

1926, 67, 357

(BENEDICT)

1926, 68, 759

—, —, total (EVERETT and SHOEMAKER)

1927, 74, vi

Diabetes, phlorhizin, elimination (DEUEL and CHAMBERS)

1925, 65, 7

Emulsifying agent, action as (CLARK and MANN)

1922, 52, 157

Excretion curves, glucose injection effect (FELSHER and WOODYATT)

1924, 60, 737

—, diabetes, phlorhizin (DEUEL and CHAMBERS)

1925, 65, 7

—, diet effect (GREENWALD, GROSS, and SAMET)

1924-25, 62, 401

—, glucose injection effect (BENEDICT and OSTERBERG)

1923, 55, 769

—, renal integrity, relation (UNDERHILL and WILENS)

1923-24, 58, 153

—, uranium nephritis, acidosis relation (HENDRIX and BODANSKY)

1924, 60, 657

—, — —, hyperglycemia relation (HENDRIX and BODANSKY)

1924, 60, 657

—, urine (NEUWIETH)

1922, 51, 11

—, —, normal (BLATHERWICK, BELL, HILL, and LONG)

1925, 66, 801

Sugar(s)—continued:

Fate, animal body (CORI and CORI)

1926, 67, xlvii

I (CORI)

1925, 66, 691

II (CORI and CORI)

1926, 70, 557

III (CORI)

1926, 70, 577

IV (CORI and CORI)

1927, 72, 597

V (CORI and CORI)

1927, 72, 615

VI (CORI and CORI)

1927, 73, 555

VII (CORI and CORI)

1927, 74, 473

Free, tumors, malignant (CORI and CORI)

1925, 64, 11

Glucose equivalent, by different methods (GREENWALD, SAMET, and GROSS)

1924-25, 62, 397

Hydroxyl groups, determination, volumetric (PETERSON and WEST)

1927, 74, 379

Metabolism, acidosis effect (KOEHLER)

1926, 67, xlv

—, amino acids, optical activity, relation (BURGE, WICKWIRE, ESTES, and WILLIAMS)

1927, 74, 235

—, ultra-violet radiation, effect (BURGE and WICKWIRE)

1927, 72, 827

Molecular configuration and acid production by *Bacillus granulobacter pectinovorum* (SPEAKMAN)

1923-24, 58, 395

Sugar(s)—continued:

Non-, reducing, blood,
human (SOMOGYI)

1927, 75, 33

Oxidation, glycogen forma-
tion, fructose absorption,
effect (CORI and CORI)

1927, 73, 555

—, —, —, absorption,
insulin effect (CORI and
CORI)

1927, 73, 555

—, —, —, glucose absorp-
tion, insulin effect (CORI
and CORI)

1926, 70, 557

—, —, —, absorption,
relation (CORI and CORI)

1926, 70, 557

— induced by (HARNED)

1927, 74, xlvii

Reagent, Shaffer-Hart-
mann micro, potassium
iodide effect (DELONG)

1927, 72, 731

Reducing power (ROWE
and WIENER)

1925, 63, lxxiii

Reduction potentials,
electrometric (PREISLER)

1927, 74, xlviii

-Regulating mechanism
(LENNOX)

1927, 73, 237

Thio, yeast (LEVENE and
SOBOTKA)

1925, 65, 551

Tolerance, glucose (WANG
and FELSHER)

1924, 59, liv

—, —, chemically pure
plus commercial granu-
lar glucose extract
(WANG and FELSHER)

1924, 59, liv

—, —, commercial granu-
lar (WANG and FELSHER)

1924, 59, liv

Sugar(s)—continued:

Tolerance, menstrual cycle,
relation (OKEY and
ROBB)

1925, 65, 165

Urine (FOLIN and SVED-
BERG)

1926, 70, 405

—, determination (SUM-
NER)

1925, 65, 393

(KINGSBURY)

1927, 75, 241

—, diabetes, determina-
tion (SUMNER)

1924-25, 62, 287

—, excretion (NEUWIRTH)

1922, 51, 11

—, nature (EAGLE)

1926-27, 71, 481

—, normal. I (GREEN-
WALD, SAMET, and
GROSS)

1924-25, 62, 397

II (GREENWALD, GROSS,
and SAMET)

1924-25, 62, 401

—, —, determination
(FOLIN)

1926, 67, 357

(BENEDICT)

1926, 68, 759

—, —, —, colorimetric
(FOLIN and BERGLUND)

1922, 51, 209

—, —, excretion (BLATH-
ERWICK, BELL, HILL,
and LONG)

1925, 66, 801

—, —, nature (GREEN-
WALD, GROSS, and Mc-
GUIRE)

1927, 75, 491

—, total (EVERETT, SHOE-
MAKER, and SHEPPARD)

1927, 74, 739

—, —, determination
(EVERETT and SHOE-
MAKER)

1927, 74, vi

Sugar(s)—continued:

Urine, variations (KINGSBURY)

1926, 67, xviii

Utilization, rats deprived of vitamin B (MATTILL)

1923, 55, xxv

Sugar acids:

2,5-Anhydro-, optical rotation, ionization effect (LEVENE and BASS)

1927, 74, 727

Dicarboxylic, lactone formation (LEVENE and SIMMS)

1925, 65, 31

Monocarboxylic, lactone formation (LEVENE and SIMMS)

1925, 65, 31

Sulfate(s):

Determination, colorimetric, blood serum (HUBBARD)

1927, 74, v

—, gasometric, micro (VAN SLYKE, HILLER, and BERTHELSEN)

1927, 74, 659

—, tissues (DENIS and LECHÉ)

1925, 65, 561

Ethereal, formation (SHIPLE, MULDOON, and SHERWIN)

1924, 60, 59

Tissue, injected, distribution (DENIS and LECHÉ)

1925, 65, 565

Sulfhemoglobin:

Detection (CAMPBELL)

1927, 74, lvi

Determination (CAMPBELL)

1927, 74, lvi

Sulfides:

Blood action (DENIS and REED)

1927, 72, 385

Sulfocarboxylic acids:

Free acids, optical rotations (LEVENE and MIKESKA)

1925, 63, 85

Salts, optical rotations (LEVENE and MIKESKA)

1925, 63, 85

Sulfonic acids:

Mercaptans, oxidation to corresponding (LEVENE and MIKESKA)

1926, 70, 365

—, secondary, oxidation to corresponding (LEVENE and MIKESKA)

1925, 65, 515

1927, 75, 587

Thio acids, oxidation to corresponding (LEVENE and MIKESKA)

1926, 70, 365

2-Thiolcarboxylic acid oxidation to (LEVENE, MORI, and MIKESKA)

1927, 75, 337

 α -Sulfopropionic acid:

Optical rotation (LEVENE and MIKESKA)

1924, 60, 1

Sulfur:

Blood, compounds, sulfur administration effect (DENIS and REED)

1927, 73, 51

—, non-protein, compounds. I (HUNTER and EAGLES)

1927, 72, 123

II (HUNTER and EAGLES)

1927, 72, 133

Compounds, cystine-related, oxidation, animal organism (HILL and LEWIS)

1924, 59, 557

Sulfur—continued:

Compounds, fate (SCHMIDT and CLARK)

1922, 53, 193

-Containing amino acid, pancreatic amylase activity, influence (CALDWELL)

1924, 59, 661

— — —, protein hydroly-
sate (MUELLER)

1923, 56, 157

II (MUELLER)

1923-24, 58, 373

— — —, sulfur excretion
after (MUELLER)

1923-24, 58, 373

— compound (thiasine),
blood (BENEDICT, NEW-
TON, and BEHRE)

1926, 67, 267

— compounds, determina-
tion, Zeisel modified pro-
cedure (EATON and
WEST)

1927, 75, 283

Cystine derivatives,
lability, insulin constitu-
tion, relation (BRAND
and SANDBERG)

1926, 70, 381

Determination, nephelo-
metric, urine (DENIS
and REED)

1926-27, 71, 205

Elementary, growth effect
(LEWIS and LEWIS)

1927, 74, 515

Excretion, sulfur-contain-
ing amino acid, ingestion
effect (MUELLER)

1923-24, 58, 373

Insulin (DU VIGNEAUD)

1927, 75, 393

Sulfur—continued:

Labile, determination,
micro, proteins (MAX-
WELL, BISCHOFF, and
BLATHERWICK)

1927, 72, 51

Metabolism (SHERWIN,
SHIPLE, and ROSE)

1927, 73, 607

V (LEWIS and MCGINTY)

1922, 53, 349

VI (LEWIS, UPDEGRAFF,
and MCGINTY)

1924, 59, 59

VII (HILL and LEWIS)

1924, 59, 557

VIII (HILL and LEWIS)

1924, 59, 569

IX (LEWIS)

1925, 65, 187

X (LEWIS and WILSON)

1926, 69, 125

XI (LEWIS and LEWIS)

1926, 69, 589

XII (LEWIS and LEWIS)

1927, 73, 535

XIII (LEWIS and LEWIS)

1927, 74, 515

—, cystine effect (LEWIS)

1925, 65, 187

Non-cystine-protein
(MUELLER)

1923, 55, xv

Non-protein, blood, deter-
mination (DENIS and
REED)

1926-27, 71, 191

—, —, distribution (REED
and DENIS)

1927, 73, 623

— compounds, blood. I
(HUNTER and EAGLES)

1927, 72, 123

II (HUNTER and
EAGLES)

1927, 72, 133

Sulfur—continued:

- Non-protein compounds,
blood, kidney function
influence (DENIS and
REED) 1927, 73, 41
—, determination, blood
(DENIS and REED)
1926-27, 71, 191

Proteins. II (HOFFMAN)
1925, 65, 251

III (GORTNER and HOFF-
MAN) 1927, 72, 433
(ABDERHALDEN)
1927, 75, 195

(GORTNER)
1927, 75, 199

Total, determination,
micro, proteins (MAX-
WELL, BISCHOFF, and
BLATHERWICK)
1927, 72, 51

Urine, compounds, sulfur
administration effect
(DENIS and REED)
1927, 73, 51

—, determination, nephelo-
metric (DENIS and
REED)
1926-27, 71, 205

—, fasting steers (CAR-
PENTER)
1923, 55, iii

Sulfuric acid:

Butter fat, reaction (SjÖR-
SLEV)
1924-25, 62, 487

Vitamin A-containing
butter fat, reaction
(SjÖRSLEV)
1924-25, 62, 487

Sulfuric esters:

Glucose, substituted
(LEVENE and MEYER)
1922, 53, 437

—, —, hydrolysis rate
(LEVENE and MEYER)
1922, 53, 437

Sunflower:

Helianthus annuus, antho-
cyanin formation
(SANDO)

1925, 64, 71

—, quercimeritrin
(SANDO)
1926, 68, 407

Sunlight:

Bone development, influ-
ence (MAYNARD, GOLD-
BERG, and MILLER)
1925, 65, 643

Calcium balance, milking
cows, effect (HART,
STEENBOCK, ELVEHJEM,
SCOTT, and HUMPHREY)
1926, 67, 371
(HART, STEENBOCK,
SCOTT, and HUMPHREY)
1926-27, 71, 263

Effect (POWERS, PARK, and
SIMMONDS)
1923, 55, 575

Leg weakness, chicks
(BETHKE, KENNARD, and
KIK) 1925, 63, 377

Pork production, restricted
rations, relation (STEEN-
BOCK, HART, and JONES)
1924, 61, 775

Suprarenal:

Cholesterol, hypertrophy
effect (BAUMANN)
1926, 67, xxx

— metabolism, relation
(RANDLES and KNUD-
SON) 1926, 67, xvii

Fat, hypertrophy effect
(BAUMANN)
1926, 67, xxx

Lipoid relation to physi-
ology. I (BAUMANN
and HOLLY)
1923, 55, 457

Suprarenal—continued:

- Lipoids, infection influence
(BAUMANN and HOLLY)
1925, 63, lxiii
- Phosphatide, hypertrophy
effect (BAUMANN)
1926, 67, xxx

Suprarenalectomy:

- Blood cholesterol, effect
(BAUMANN and HOLLY)
1923, 55, 457
- inorganic constituents,
changes (BAUMANN and
KURLAND)
1926-27, 71, 281
- lipid phosphorus, effect
(BAUMANN and HOLLY)
1923, 55, 457

Suprarenin:

- Dextro-, lymph, mineral
metabolism, effect
(PETERSEN and HUGHES)
1925, 66, 229
- Levo-, lymph, mineral
metabolism, effect
(PETERSEN and HUGHES)
1925, 66, 229

Surface area:

- Determination, fetus
(SANDIFORD)
1924-25, 62, 323
- Formulas, graphic com-
parison (SANDIFORD)
1924-25, 62, 323

Surface tension:

- Detoxication, factor (ROSE
and SHERWIN)
1926, 68, 565
- of foreign organic sub-
stances, relation (ROSE
and SHERWIN)
1924, 59, p. 1

Sweat glands:

- Absence, water elimina-
tion from lungs, effect
(RICHARDSON)
1926, 67, 397

Sweat glands—continued:

- Absence, water elimina-
tion from skin, effect
(RICHARDSON)
1926, 67, 397

Sympathetic nervous system:

- Blood calcium, section
effect (HESS, BERG, and
SHERMAN)
1927, 74, xxvii

Sympsectothion:

- Sulfur, non-protein, com-
pound, blood (HUNTER
and EAGLES)
1927, 72, 123

See also Ergothioneine,
Thiasine.

Synovial fluid:

- Chlorides, blood plasma
and (FREMONT-SMITH
and DAILEY)
1926, 70, 779
- Composition (CAJORI and
PEMBERTON)
1927, 74, xxii
- Proteins, blood plasma and
(FREMONT-SMITH and
DAILEY)
1926, 70, 779

Synthalin:

- Metabolism effect (BLATH-
ERWICK, SAHYUN, and
HILL)
1927, 75, 671

Taro:

- Starch, raw, digestibility
(LANGWORTHY and
DEUEL)
1922, 52, 251

Taurine:

- Cystine replacement in
diet (LEWIS and LEWIS)
1926, 69, 589
- Cystine-deficient diet, sup-
plement (ROSE and HUD-
DLESTUN)
1926, 69, 599

Taurine—continued:

Titration curves (ANDREWS
and SCHMIDT)

1927, 73, 651

Tea leaves:

Adenine nucleotide prep-
aration (CALVERY)

1926, 68, 593

Chemistry. II (CALVERY)

1927, 72, 549

Cytosine nucleotide isola-
tion (CALVERY)

1927, 72, 549

Guanine nucleotide isola-
tion (CALVERY)

1927, 72, 549

Temperature:

Acid-base-protein equi-
librium, effect (STADIE,
AUSTIN, and ROBINSON)

1925, 66, 901

Carbon dioxide absorption
curve, blood, influence
(STADIE, AUSTIN, and
ROBINSON)

1925, 66, 901

— — — —, blood serum,
influence (STADIE,
AUSTIN, and ROBINSON)

1925, 66, 901

Catalase activity loss,
effect (MORGULIS,
BEBER, and RABKIN)

1926, 68, 535

— reaction, effect. I
(MORGULIS, BEBER, and
RABKIN)

1926, 68, 521

II (MORGULIS, BEBER,
and RABKIN)

1926, 68, 535

III, IV (MORGULIS,
BEBER, and RABKIN)

1926, 68, 547

V (MORGULIS and
BEBER)

1927, 72, 91

Temperature—continued:

Catalase reaction, hydrogen
ion concentrations, effect
(MORGULIS, BEBER, and
RABKIN)

1926, 68, 547

— — — peroxide concen-
tration, effect (MOR-
GULIS, BEBER, and RAB-
KIN)

1926, 68, 521

Control, Clark hydrogen
electrode vessel, modi-
fication (CULLEN)

1922, 52, 521

Correction, catalase deter-
minations (MORGULIS
and BEBER)

1927, 72, 91

Electrolyte composition,
blood serum, poikilo-
thermous animal at
different (AUSTIN,
SUNDERMAN, and CA-
MACK)

1927, 72, 677

Enzymes, ester-hydrolyz-
ing, effect (NOYES, LOR-
BERBLATT, and FALK)

1926, 68, 135

Hydrogen ion concentra-
tion, blood serum, poiki-
lothermous animal at
different (AUSTIN,
SUNDERMAN, and CA-
MACK)

1927, 72, 677

Protein intake, effect
(DENIS and BORGSTROM)

1924, 61, 109

— metabolism, effect
(YOUNGBURG and
FINCH)

1926, 68, 335

Temperature coefficient:

Enzyme activity (COOK)

1925, 65, 135

Tetany:

- (DRUCKER and FABER)
1926, 68, 57
- Alkalosis, relation (GREENWALD)
1922, 54, 285
1924, 59, 1
- Calcium compounds, blood (GREENWALD)
1926, 67, 1
- , alkalosis, sodium ion concentration, comparison (DENIS and VON MEYSENBUG)
1923, 57, 47
- Causes (PETERS, BULGER, EISENMAN, and LEE)
1926, 67, 175
- Parathyroid (CAMERON and MOORHOUSE)
1925, 63, 687
- , blood calcium (CAMERON and MOORHOUSE)
1925, 63, 687
- , —, inorganic ion balance (GROSS and UNDERHILL)
1922, 54, 105
- , — serum calcium and protein, relation between (SALVESEN and LINDER)
1923-24, 58, 635
- , cerebrospinal fluid calcium (CAMERON and MOORHOUSE)
1925, 63, 687
- , guanidine relation (COLLIP and CLARK)
1926, 67, 679
- , liver rôle (BLUMENSTOCK and ICKSTADT)
1924, 61, 91
- , parathyroid hormone relation (COLLIP)
1925, 63, 395
- Pathogenesis (GREENWALD and GROSS)
1925, 66, 217

Tetany—continued:

- Pathogenesis (GREENWALD)
1926, 67, 1
- Production, sodium ion influence (TISDALL)
1922, 54, 35
- Sodium poisoning, relation (GREENWALD)
1924, 59, 1
- Tetramethylmannonolactone:**
Isomeric (LEVENE and MEYER)
1924, 60, 167
- 2,3,5,6-Tetramethylmethylglucoside:**
 α - and β -isomers (LEVENE and MEYER)
1927, 74, 701
- Theophylline pentoside:**
(LEVENE and SOBOTKA)
1925, 65, 463
- Thermodynamics:**
Blood, base-combining properties, relations (STADIE and MARTIN)
1924, 60, 191
- , oxygen-combining properties, relations (STADIE and MARTIN)
1924, 60, 191
- Laws, specific dynamic action (ADAMS)
1926, 67, xxi
- Thiasine:**
Ergothioneine, identification (NEWTON, BENEDICT, and DAKIN)
1927, 72, 367
- Structure (NEWTON, BENEDICT, and DAKIN)
1927, 72, 367
- Sulfur-containing compound, blood (BENEDICT, NEWTON, and BEHRE)
1926, 67, 267
- See also* Ergothioneine, Sympectothion.

Thio acids:

Sulfonic acids from oxidation of (LEVENE and MIKESKA)

1926, 70, 365

Thiocarboxylic acids:

Free acids, optical rotations (LEVENE and MIKESKA)

1925, 63, 85

Salts, optical rotations (LEVENE and MIKESKA)

1925, 63, 85

Thiocresol:

Behavior, animal organism (HILL and LEWIS)

1924, 59, 569

Thiolactic acid:

Optical rotation (LEVENE and MIKESKA)

1924, 60, 1

2-Thiolcarboxylic acid:

Oxidation to corresponding sulfonic acids (LEVENE, MORI, and MIKESKA)

1927, 75, 337

Thiophenol:

Behavior, animal organism (HILL and LEWIS)

1924, 59, 569

Thiosuccinamide:

Oxidation to corresponding sulfo acid (LEVENE and MIKESKA)

1924, 60, 685

Thiosuccinic acid:

Oxidation to corresponding sulfo acid (LEVENE and MIKESKA)

1924, 60, 685

Thio sugar:

Yeast (LEVENE and SOBOTKA)

1925, 65, 551

Thiry-Vella loop:

Glucose solutions, effect (WHITE and RABINOWITCH)

1927, 74, 449

Thiry-Vella loop—continued:

Salt solutions, effect (WHITE and RABINOWITCH)

1927, 74, 449

Thymine:

4,5-Dihydroxyhydro-, oxidation (BAUDISCH and DAVIDSON)

1925, 64, 233

Oxidation, mechanism (BAUDISCH and DAVIDSON)

1925, 64, 233

Thymine glycol:

Oxidation (BAUDISCH and DAVIDSON)

1925, 64, 233

Thymus:

Involution, chemistry (HAMMETT)

1927, 74, lxiii

Thyroid:

Apparatus. XVII (HAMMETT)

1923, 57, 285

XLIV (HAMMETT)

1927, 72, 505

XLV (HAMMETT)

1927, 72, 527

Bile salt metabolism, influence (SMYTH and WHIPPLE)

1924, 59, 637

Deficiency, bone composition, effect (HAMMETT)

1924, 59, xli

Gland, bone ash, growth, rôle (HAMMETT)

1927, 72, 505

—, — calcium, growth, rôle (HAMMETT)

1927, 72, 527

—, — magnesium, growth, rôle (HAMMETT)

1927, 72, 527

—, — organic matter, growth, rôle (HAMMETT)

1927, 72, 505

Thyroid—continued:

- Gland, bone phosphorus, growth, rôle (HAMMETT) 1927, 72, 527
- , — water, growth, rôle (HAMMETT) 1927, 72, 505
- , globulin, amino acids, distribution (ECKSTEIN) 1926, 67, 601
- , hyperplastic, iodine distribution, iodine injection effect (VAN DYKE) 1922, 54, 11
- , insulin effects, relation (BODANSKY) 1925, 63, lxvi
- , iodine distribution. IV (VAN DYKE) 1922, 54, 11
- Specific dynamic action, secretion relation (BAUMANN and HUNT) 1925, 64, 709

Thyroparathyroidectomy:

- Blood (GREENWALD) 1924, 61, 649
- serum calcium, calcium salts administration influence (HJOERT) 1925, 65, 783
- —, refractive index (HAMMETT) 1923, 55, x
- —, water content (HAMMETT) 1923, 55, x
- Calcium excretion (GREENWALD and GROSS) 1925, 66, 185
- metabolism, calcium salts administration effect (GREENWALD) 1926, 67, 1
- —, sodium phosphate administration effect (GREENWALD) 1926, 67, 1

Thyroparathyroidectomy—continued:

- Cod liver oil effect (JONES) 1926, 70, 647
- Femur ash, calcium (HAMMETT) 1923, 57, 285
- —, magnesium (HAMMETT) 1923, 57, 285
- —, phosphorus (HAMMETT) 1923, 57, 285
- Humerus ash, calcium (HAMMETT) 1923, 57, 285
- —, magnesium (HAMMETT) 1923, 57, 285
- —, phosphorus (HAMMETT) 1923, 57, 285
- Hypercalcemia, induced by parathyroid extract (HJOERT, ROBISON, and TENDICK) 1925, 65, 117
- Magnesium excretion (GREENWALD and GROSS) 1925, 66, 185
- Phosphorus excretion (GREENWALD and GROSS) 1925, 66, 185
- metabolism, calcium salts administration effect (GREENWALD) 1926, 67, 1
- —, sodium phosphate administration effect (GREENWALD) 1926, 67, 1

Thyroxine:

- Action (RABINOWITCH) 1924-25, 62, 245
- , physiological (KENDALL) 1925, 63, xi
- , tissues (KENDALL) 1926, 67, iii

Thyroxine—continued:

Bile salt metabolism, influence (SMYTH and WHIPPLE) 1924, 59, 637

Calorigenic agent, catalytic power (BOOTHBY and SANDIFORD)

1924, 59, xl

Carbohydrate-high diet, effect (SANDIFORD and SANDIFORD)

1927, 74, li

Chemical configuration (KENDALL)

1926, 67, iii

— reactions in physiological functioning (KENDALL)

1924, 59, xxxix

Destruction rate (BOOTHBY and SANDIFORD)

1924, 59, xl

Isolation (KENDALL)

1927, 72, 213

Isomer, 3, 4, 5-triiodophenylpyrrolidone carboxylic acid (HARINGTON)

1925, 64, 29

Protein, deposit, effect (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY)

1926, 67, xxiii

-Related compounds, oxidation-reduction potentials (ORT)

1926, 67, x

Urine nitrogen partition products, protein-free diet, effect (SANDIFORD, SANDIFORD, DEUEL, and BOOTHBY)

1926, 67, xxiv

Tisdall:

Blood serum calcium, modified method (CLARK and COLLIP)

1925, 63, 461

Tissue:

Animal, ash, nutritional anemia, corrective

(HART, ELVEHJEM, WADDELL, and HERBIN) 1927, 72, 299

—, iron (ELVEHJEM and PETERSON)

1927, 74, 433

—, plant nucleotides (JONES and PERKINS)

1924-25, 62, 291

Beef, lipase action (FALK, NOYES, and SUGIURA)

1924, 59, 213

—, protease action (FALK, NOYES, and SUGIURA)

1924, 59, 213

Body, arsenic determination (LAWSON and SCOTT)

1925, 64, 23

Brain, arachidonic acid from (WESSON)

1924, 60, 183

— extracts, creatinine formation from creatine (HAMMETT)

1924, 59, 347

Buffering, carbon dioxide capacity of body, indication (BROCKLEHURST and HENDERSON)

1927, 72, 665

Calcium, determination (CORLEY and DENIS)

1925, 66, 601

—, excessive calcium ingestion and ultra-violet light exposure, effect (DENIS and CORLEY)

1925, 66, 609

—, — — —, effect (DENIS and CORLEY)

1925, 66, 609

Chlorides, determination (VAN SLYKE)

1923-24, 58, 523

Tissue—continued:

Chlorides, organic, gastric hydrochloric acid formation, relation (HANKS and DONOVAN)

1927, 74, xxiv

Clam, insulin-like substance in (COLLIP)

1923, 55, xxxix

Connective, determination, meat (MITCHELL, ZIMMERMAN, and HAMILTON)

1926-27, 71, 379

—, meat, protein value in nutrition, relation (MITCHELL, BEADLES, and KRUGER)

1927, 73, 767

Creatine distribution (CHANUTIN)

1927, 74, xxi

1927, 75, 549

Creatinine determination (ROSE, HELMER, and CHANUTIN)

1927, 75, 543

Epidermal, cystine (WILSON and LEWIS)

1927, 73, 543

Extract, blood coagulation, blood serum and. I (LOEB, FLEISHER, and TUTTLE)

1922, 51, 461

II (LOEB, FLEISHER, and TUTTLE)

1922, 51, 485

—, — serum and, fluoride plasma (LOEB, FLEISHER, and TUTTLE)

1922, 51, 461

—, — — —, hirudin plasma (LOEB, FLEISHER, and TUTTLE)

1922, 51, 461

Tissue—continued:

Extract, blood serum and, peptone plasma (LOEB, FLEISHER, and TUTTLE)

1922, 51, 461

Extracts, blood serum and, interaction mechanism (LOEB, FLEISHER, and TUTTLE)

1922, 51, 485

—, enzyme actions (FALK, NOYES, and SUGIURA)

1924, 59, 225

—, erythrocyte stroma and, blood coagulation effect (LOEB, FLEISHER, and TUTTLE)

1922, 51, 485

—, ester-hydrolyzing actions, kinetics (SUGIURA, NOYES, and FALK)

1923, 56, 903

—, — —, time changes (FALK and NOYES)

1927, 72, 489

Fat, obesity experimentally induced (FOSTER and BENNINGHOVEN)

1926, 70, 285

Fatty acids, unsaturated, distribution. I (BLOOR)

1926, 68, 33

II (BLOOR)

1927, 72, 327

Glycogen, obesity experimentally induced (FOSTER and BENNINGHOVEN)

1926, 70, 285

Insect, arsenic determination (FINK)

1927, 72, 737

Insulin in (BEST, SMITH, and SCOTT)

1924, 59, xxx

Tissue—continued:

Iron, determination (KENNEDY)

1927, 74, 385

Lactic acid, epinephrine influence (CORI)

1925, 63, liii, 253

—, insulin influence (CORI)

1925, 63, liii, 253

Limulus, urease (LOEB and BODANSKY)

1926, 67, 79

Lipase action (FALK, NOYES, and SUGIURA)

1924, 59, 183

(NOYES and FALK)

1924-25, 62, 687

(FALK, NOYES, and SUGIURA)

1924-25, 62, 697

Lipolytic action, hydrogen ion concentration variation effect (NOYES, SUGIURA, and FALK)

1923, 55, 653

Liver, antipressor fraction (JAMES, LAUGHTON, and MACALLUM)

1926, 67, vi

—, glucose *in vitro*, action (LUNDGAARD and HOLBØLL)

1926, 68, 485

—, insulin and, glucose *in vitro*, action (LUNDGAARD and HOLBØLL)

1926, 68, 485

Mixtures, enzyme actions (FALK, NOYES, and SUGIURA)

1924, 59, 225

Muscle, and insulin, glucose, *in vitro*, influence (LUNDGAARD and HOLBØLL)

1926, 70, 71

Tissue—continued:

Muscle, and insulin, *in vitro*, glucose reducing values, effect (PAUL)

1926, 68, 425

—, —, — *in vitro*, glucose rotation values, effect (PAUL)

1926, 68, 425

—, atrophy (CHEN, MEEK, and BRADLEY)

1924, 61, 807

—, enzymes, creatine, effect (HAMMETT)

1922, 53, 323

—, —, creatinine, effect (HAMMETT)

1922, 53, 323

— extracts, creatinine formation from creatine (HAMMETT)

1924, 59, 347

—, fumaric acid, action (DAKIN)

1922, 52, 183

—, glucose, and insulin, interaction (BARBOUR)

1926, 67, 53

—, glucose-insulin solutions, *in vitro*, effect (BEARD and JERSEY)

1926, 70, 167

—, glutaconic acid, action (DAKIN)

1922, 52, 183

—, *in vitro*, glucose reducing values, effect (PAUL)

1926, 68, 425

—, —, — rotation values, effect (PAUL)

1926, 68, 425

—, maleic acid, action (DAKIN)

1922, 52, 183

Tissue—continued:

- Muscle, malic acid, action
(DAKIN) 1922, 52, 183
- Non-protein constituents,
endogenous catabolism,
relation (MITCHELL,
NEVENS, and KENDALL)
1922, 52, 417
- Oxygen consumption,
hydrogen ion concentra-
tion effect (KOEHLER
and REITZEL)
1925, 64, 739
- — measurement, appa-
ratus (KOEHLER)
1925, 63, 475
- Pancreas, pentose com-
pounds, distribution,
ling cod (BERKELEY)
1923-24, 58, 611
- Placenta, alcohol content
(McNALLY, EMBREE, and
RUST)
1927, 74, 219
- Plant, ash, nutritional
anemia, corrective
(HART, ELVEHJEM,
WADDELL, and HERRIN)
1927, 72, 299
- , extracts, florid rickets,
effect (SHIPLEY, KINNEY,
and McCOLLUM)
1924, 59, 165
- , glucokinase, hormone in
(COLLIP)
1923, 56, 513
- , green, vitamin A
(QUINN, BURTIS, and
MILNER)
1927, 72, 557
- , —, — B (QUINN, BUR-
TIS, and MILNER)
1927, 72, 557
- , —, — C (QUINN, BUR-
TIS, and MILNER)
1927, 72, 557

Tissue—continued:

- Plant, vitamin A associa-
tion with greenness. I
(DYE, MEDLOCK, and
CRIST)
1927, 74, 95
- , — — formation, heat
influence (COWARD)
1927, 72, 781
- , — — —, light influence
(COWARD)
1927, 72, 781
- Protease action (FALK,
NOYES, and SUGIURA)
1924, 59, 183
- Sulfate, determination
(DENIS and LECHE)
1925, 65, 561
- , injected, distribution
(DENIS and LECHE)
1925, 65, 565
- Thyroxine action (KEN-
DALL) 1926, 67, iii
- Urea determination, micro
(GAD-ANDRESEN)
1922, 51, 373
- Urease, *Limulus* (LOEB
and BODANSKY)
1926, 67, 79
- Titration curve:**
- Cysteic acid (ANDREWS
and SCHMIDT)
1927, 73, 651
- Graphical interpretation,
electrometric data
(SIMMS and LEVENE)
1926, 70, 319
- Nucleic acid structure
determination (LEVENE
and SIMMS)
1926, 70, 327
- Taurine (ANDREWS and
SCHMIDT)
1927, 73, 651

Tolerance:

Carbohydrate (BERGLUND and NI)

1925, 63, xlviii

—, chloroform poisoning effect (BODANSKY)

1923-24, 58, 515

—, phosphorus poisoning effect (BODANSKY)

1923-24, 58, 515

Fructose (BODANSKY)

1923, 56, 387

—, following injection (CORI and CORI)

1927, 72, 597

—, insulin effect, following injection (CORI and CORI)

1927, 72, 597

Galactose (BODANSKY)

1923, 56, 387

(BERGLUND and NI)

1925, 63, xlviii

—, endocrine disturbance influence (ROWE)

1926, 67, xlviii

Glucose (BODANSKY)

1923, 56, 387

—, diet influence (GREENWALD, GROSS, and SAMET)

1924-25, 62, 401

—, following injection (CORI and CORI)

1927, 72, 597

—, insulin effect, following injection (CORI and CORI)

1927, 72, 597

Pentose (BERGLUND and NI)

1925, 63, xlviii

Sugar, glucose (WANG and FELSHER)

1924, 59, liv

—, —, chemically pure plus commercial granular glucose extract (WANG and FELSHER)

1924, 59, liv

Tolerance—continued:

Sugar, glucose, commercial granular (WANG and FELSHER)

1924, 59, liv

—, menstruation relation (OKEY and ROBB)

1925, 65, 165

Tomato:

Juice, fermentation, vitamin C (LEPKOVSKY, HART, HASTINGS, and FRAZIER)

1925, 66, 49

Solanum esculentum, seed, proteins (JOHNS and GERSDORFF)

1922, 51, 439

Tooth:

Diet influence (TOVERUD)

1923-24, 58, 583

Fluorine in diet, effect (MCCOLLUM, SIMMONDS, BECKER, and BUNTING)

1925, 63, 553

Growth, biochemistry (MATSUDA)

1926-27, 71, 437

Toxicity:

Ammonium salts (UNDERHILL and KAPSINOW)

1922, 54, 451

Intarvin (HEFT, KAHN, and GIES)

1925, 63, lvii

Zinc (HELLER and BURKE)

1927, 74, 85

Toxin:

Blood, parathyroidectomy (GREENWALD)

1924, 61, 33

Transport numbers:

Fibrin solutions (GREENBERG)

1927, 74, lii

Tree-fern:

Starch, raw, digestibility
(LANGWORTHY and
DEUEL)

1922, 52, 251

Trianhydrostrophanthidin:

Oxidation (JACOBS and
GUSTUS)

1927, 74, 805

**3, 4, 5-Triiodophenylpyrro-
lidone carboxylic acid:**

Synthesis (HARINGTON)

1925, 64, 29

**3, 5, 6-Trimethylmethylgluco-
side:**

α - and β -isomers (LEVENE
and MEYER)

1927, 74, 701

Tripeptide:

Enzyme hydrolysis
(LEVENE, SIMMS, and
PFALTZ)

1926, 70, 253

Triphenylacetic acid:

Fate, animal body (MIR-
IAM, WOLF, and SHER-
WIN)

1926-27, 71, 695

Triphenylcarbinol:

Fate, animal body (MIR-
IAM, WOLF, and SHER-
WIN)

1926-27, 71, 695

Triphenylmethane:

Fate, animal body (MIR-
IAM, WOLF, and SHER-
WIN)

1926-27, 71, 695

Triticonucleic acid:

Nucleotides (CALVERY and
REMSSEN)

1927, 73, 593

Triticum vulgare:

See Wheat.

Trypsin:

Determination, Gross
modified method (KAI)

1922, 52, 133

Trypsin—continued:

Digestion, ammonia libera-
tion (HUNTER and
SMITH)

1924-25, 62, 649

Insulin, action (SCOTT)

1925, 63, 641

Protein digestion, gossy-
pol effect (JONES and
WATERMAN)

1923, 56, 501

— synthesis action (WAST-
ENEYS and BORSOOK)

1925, 63, 575

Tryptophane:

Blood, mammary gland
utilization (CARY)

1926, 67, xl

-Deficient diet, indole
derivatives, effect (JACK-
SON)

1927, 73, 523

Determination, blood,
Hopkins-Cole glyoxylic
acid reagent (CARY)

1926, 67, xxxix

—, colorimetric (KRAUS)

1925, 63, 157, lkv

—, —, proteins (FOLIN and
LOONEY)

1922, 51, 421

II (LOONEY)

1926, 69, 519

—, protein (FOLIN and
CIOCALTEU)

1927, 73, 627

Globulins, jack bean (SUM-
NER and GRAHAM)

1925, 64, 257

Indole, quantitative sepa-
ration (KRAUS)

1925, 63, 157, lkv

Metabolism. I (ROBSON)

1924-25, 62, 495

Bz-3-Methyl-, racemic,
synthesis (ROBSON)

1924-25, 62, 495

Tryptophane—continued:

- Preparation, lactalbumin hydrolysate (WATERMAN) 1923, 56, 75
 Proteins (MAY and ROSE) 1922, 54, 213
 (JONES, GERSDORFF, and MOELLER) 1924-25, 62, 183
 —, determination (FOLIN and CIOCALTEU) 1927, 73, 627
 —, —, colorimetric. II (LOONEY) 1926, 69, 519
 Skatole, quantitative separation (KRAUS) 1925, 63, 157, lxxv
 Synthesis, alanine rôle, animal organism (SURE) 1924, 59, xvi
 —, indole rôle, animal organism (SURE) 1924, 59, xvi

Tubercle bacillus:

- Albumin-globulin fraction (COGHILL) 1926, 70, 439
 Alkali-soluble protein (COGHILL) 1926, 70, 449
 Lipoid fractions, separation (ANDERSON) 1927, 74, 525
 Lipoids (ANDERSON) 1927, 74, lxxvi
 Nucleic acid (JOHNSON and BROWN) 1922, 54, 731
 — — preparation, nucleoprotein (JOHNSON and BROWN) 1922, 54, 721
 Phosphatide fraction (ANDERSON) 1927, 74, 537

Tubercle bacillus—continued:

- Protein, nitrogen distribution (JOHNSON and COGHILL) 1925, 63, 225
 Tuberculinic acid (JOHNSON and BROWN) 1922, 54, 721

Tuberculinic acid:

- Analysis (BROWN and JOHNSON) 1923, 57, 199
 Pyrimidines (JOHNSON and BROWN) 1922, 54, 731
 Tubercle bacillus, preparation from (JOHNSON and BROWN) 1922, 54, 721

Tuberculosis:

- Blood lipoids (HENNING) 1922, 53, 167

Tumor:

- Animals, glutathione (VOEGTLIN and THOMPSON) 1926, 70, 801
 Blood carbon dioxide-combining power, changes while passing through (CORI and CORI) 1925, 65, 397
 — lactic acid changes while passing through (CORI and CORI) 1925, 65, 397
 — sugar changes while passing through (CORI and CORI) 1925, 65, 397
 Carbohydrate metabolism. I (CORI and CORI) 1925, 64, 11
 II (CORI and CORI) 1925, 65, 397
 Extracts ester-hydrolyzing actions, kinetics (SUGIURA, NOYES, and FALK) 1923, 56, 903

Tumor—continued:

Lipolytic action, hydrogen ion concentration variation effect (NOYES, SUGIURA, and FALK)
1923, 55, 653

Malignant, extracts, protease action (FALK, NOYES, and SUGIURA)
1922, 53, 75

—, glycogen (CORI and CORI)
1925, 64, 11

—, lactic acid (CORI and CORI)
1925, 64, 11

—, sugar, free (CORI and CORI)
1925, 64, 11

-Tissue extracts, enzyme actions (FALK, NOYES, and SUGIURA)
1924, 59, 225

Tungstic acid:

Protein precipitation, hydrogen ion concentration relation (MERRILL)
1924, 60, 257

Typhus fever:

Cerebrospinal fluid, protein increase (LING)
1926, 69, 397

Tyramine:

Determination, protein-containing mixtures (HANKS)
1925, 66, 475

Formation, tyrosine, silk (JOHNSON and DASCHAVSKY)
1924-25, 62, 725

Production, intestinal microorganisms, laboratory media (HANKS and KOESSLER)
1924, 59, 855

Tyrosine:

Acetic anhydride, acetone, and pyridine, action (LEVENE and STEIGER)
1927, 74, 689

Tyrosine—continued:

Casein, deaminized (LEWIS and UPDEGRAFF)
1923, 56, 405

Determination, colorimetric, protein (HANKS)
1927, 74, x
(FOLIN and LOONEY)
1922, 51, 421

II (LOONEY)

1926, 69, 519

—, protein (HANKS)
1925, 66, 475
(FOLIN and CIICALTEU)
1927, 73, 627

Globulins, jack bean (SUMNER and GRAHAM)
1925, 64, 257

Protein (HANKS)
1925, 66, 489

Pyridine, acetic anhydride, and acetone, action (LEVENE and STEIGER)
1927, 74, 689

Silk, tyramine formation (JOHNSON and DASCHAVSKY)
1924-25, 62, 725

U**Udder:**

Inflammation, aseptic, milk effect (SJOLLEMA and VAN DER ZANDE)
1922, 53, 513

Ultrafiltration:

Blood serum inorganic constituents (NEUHAUSEN and PINCUS)
1923, 57, 99
(PINCUS, PETERSON, and KRAMER)
1926, 68, 601

Ultra-violet:

Absorption spectrum, amino acids (STENSTRÖM and REINHARD)
1925, 66, 819

Ultra-violet—continued:

- Absorption spectrum,
blood serum (STEENSTRÖM
and REINHARD)
1925, 66, 819
- Irradiation, antirachitic
activation (HESS and
WEINSTOCK)
1925, 63, xxv
- , — variations (STEEN-
BOCK, HART, RISING,
and HOPPERT)
1927, 74, lxxiii
- , blood serum calcium,
effect (MORITZ)
1925, 64, 81
- , green vegetables, anti-
rachitic properties (HESS
and WEINSTOCK)
1924-25, 62, 301
- , hay, antirachitic prop-
erties (STEENBOCK,
HART, ELVEHJEM, and
KLETZIEN)
1925, 66, 425
- , inert fluids, antirachitic
properties (HESS and
WEINSTOCK)
1924-25, 62, 301
- , — substances, anti-
rachitic properties
(HESS and WEINSTOCK)
1925, 63, 297
- , sterol fractions, activa-
tion (HESS and ANDER-
SON)
1927, 74, 651
- Light, calcium metabolism,
milking cows, influence
(HART, STEENBOCK,
SCOTT, and HUMPHREY)
1927, 73, 59
- , —, tissues, excessive
calcium ingestion effect
(DENIS and CORLEY)
1925, 66, 609

Ultra-violet—continued:

- Light, egg fertility, influ-
ence (HART, STEEN-
BOCK, LEPKOVSKY,
KLETZIEN, HALPIN, and
JOHNSON)
1925, 65, 579
- , — hatchability, influ-
ence (HART, STEENBOCK,
LEPKOVSKY, KLETZIEN,
HALPIN, and JOHNSON)
1925, 65, 579
- , — production, influence
(HART, STEENBOCK,
LEPKOVSKY, KLETZIEN,
HALPIN, and JOHNSON)
1925, 65, 579
- , growth-promoting
properties induced by
(NELSON and STEEN-
BOCK)
1924-25, 62, 575
- , hen exposed to, anti-
rachitic vitamin, eggs,
relation (HUGHES,
PAYNE, TITUS, and
MOORE)
1925, 66, 595
- , phosphorus metab-
olism, milking cows,
influence (HART, STEEN-
BOCK, SCOTT, and HUM-
PHREY)
1927, 73, 59
- , purified rations, anti-
rachitic properties
(DUTCHER and KRUGER)
1926, 69, 277
- , ration exposed to, calci-
fying properties (STEEN-
BOCK and BLACK)
1924, 61, 405
- , — — —, growth-pro-
moting properties
(STEENBOCK and BLACK)
1924, 61, 405

Ultra-violet—continued:

Light, rickets prevention
(HUGHES, NITCHER, and
TITUS)

1925, 63, 205

— transmission, glass sub-
stitute (RUSSELL and
MASSENGALE)

1927, 74, lxxvi

Radiation, insulin destruc-
tion (BURGE and WICK-
WIRE) 1927, 72, 827

—, sugar metabolism
decrease (BURGE and
WICKWIRE)

1927, 72, 827

Rays, cholesterol ethers
and esters, antirachitic
action (BILLS and Mc-
DONALD)

1927, 72, 13

Uracil:

5-Amino-, oxidation (BAU-
DISCH and DAVIDSON)

1926-27, 71, 497

Color tests (BAUDISCH)

1924, 60, 155

Uracil xyloside:

Substituted (LEVENE and
SOBOTKA)

1925, 65, 469

Uranium:

Nephritis, acidosis, acid
excretion, relation
(HENDRIX and BODAN-
SKY) 1924, 60, 657

—, —, base excretion, re-
lation (HENDRIX and
BODANSKY)

1924, 60, 657

—, —, sugar excretion,
relation (HENDRIX and
BODANSKY)

1924, 60, 657

—, hyperglycemia, acid
excretion, relation
(HENDRIX and BODAN-
SKY) 1924, 60, 657

Uranium—continued:

Nephritis, hyperglycemia,
base excretion, relation
(HENDRIX and BODAN-
SKY) 1924, 60, 657

—, —, sugar excretion,
relation (HENDRIX and
BODANSKY)

1924, 60, 657

Urea:

Blood, determination
(BEHRE)

1923, 56, 395

—, Folin-Wu filtrates,
determination (CLARK
and COLLIP)

1926, 67, 621

—, formation, digestion
effect (MORGULIS)

1925, 66, 353

—, pyloric obstruction
(FELTY and MURRAY)

1923, 57, 573

—, urea excretion relation
(ADDIS and DRURY)

1923, 55, 105

(DRURY)

1923, 55, 113

Cyanic acid production,
urease (SUMNER)

1926, 68, 101

Determination (WEARN
and RICHARDS)

1925, 66, 275

—, blood (BEHRE)

1923, 56, 395

—, —, Folin-Wu filtrates
(CLARK and COLLIP)

1926, 67, 621

—, gasometric (STEHLE)

1922, 51, 89

(VAN SLYKE)

1927, 73, 695

—, micro, urease method
(GAD-ANDRESEN)

1922, 51, 373

—, saliva (SCHMITZ)

1923, 55, xliii

Urea—continued:

Excretion, blood urea relation (ADDIS and DRURY)
1923, 55, 105

(DRURY)
1923, 55, 113

—, factors (ADDIS and DRURY)

1923, 55, 629

— rate. V (ADDIS and DRURY)

1923, 55, 105

VI (DRURY)
1923, 55, 113

VII (ADDIS and DRURY)
1923, 55, 629

VIII (ADDIS and DRURY)
1923, 55, 639

—, urine volume changes, effect (ADDIS and DRURY)

1923, 55, 639

Formation, amino acids (FOLIN and BERGLUND)
1922, 51, 395

Hypobromite reaction (MENAUL)

1922, 51, 87

Kidney efficiency test. I (RABINOWITCH)

1925, 65, 617

Saliva, determination (SCHMITZ)

1923, 55, xliii

Urease, cyanic acid production (SUMNER)

1926, 68, 101

— determination, micro (GAD-ANDRESEN)

1922, 51, 373

—Urease system, cyanic acid, significance (FEARON)

1926, 70, 785

Urease:

Activity, nitrogen compounds effect (ROCKWOOD and HUSA)

1923, 55, v

Urease—continued:

Amebocytes, *Limulus*, extraction (LOEB and BODANSKY)

1927, 72, 415

Blood cells, *Limulus* (LOEB and BODANSKY)

1926, 67, 79

— plasma, *Limulus* (LOEB and BODANSKY)

1926, 67, 79

Crystallization (SUMNER)

1926, 69, 435

1926, 70, 97

Crystallized, properties (SUMNER)

1927, 74, lxi

Cyanic acid production, urea (SUMNER)

1926, 68, 101

Isolation (SUMNER)

1926, 69, 435

Jack bean (SUMNER and GRAHAM)

1925, 63, xliii

— — proteins (SUMNER, GRAHAM, and NOBACK)

1924, 59, xx

Precipitation, lead acetate (SUMNER)

1926, 67, viii

Tissues, *Limulus* (LOEB and BODANSKY)

1926, 67, 79

Urea determination, gasometric (VAN SLYKE)

1927, 73, 695

— —, micro (GAD-ANDRESEN)

1922, 51, 373

Urea-, system, cyanic acid significance (FEARON)

1926, 70, 785

Ureter:

Ligation, electrolyte distribution following (ATCHELEY and BENEDICT)

1927, 73, 1

Urethane:

Narcosis, glucose specific
dynamic action, influ-
ence (GUTTMACHER and
WEISS)

1927, 72, 283

—, glycocholic specific
dynamic action, influ-
ence (GUTTMACHER and
WEISS)

1927, 72, 283

Uric acid:

I (PUCHER)

1922, 52, 317

II (PUCHER)

1922, 52, 329

Blood, carbohydrate diet
influence (HARDING,
ALLIN, and EAGLES)

1927, 74, 631

— cell, combined, distribu-
tion (NEWTON and
DAVIS)

1922, 54, 601

—, combined (DAVIS,
NEWTON, and BENE-
DICT)

1922, 54, 595

—, —, various species
(NEWTON and DAVIS)

1922, 54, 603

—, cyclic variations,
women (OKEY and ERIK-
SON)

1926, 68, 687

—, determination (BENE-
DICT)

1922, 51, 187

(FOLIN)

1922, 54, 153

(BULMER, EAGLES, and
HUNTER)

1925, 63, 17

(BENEDICT)

1925, 64, 215

(BROWN)

1926, 68, 123

—, —, unknown substance,
effect (HUNTER and
EAGLES)

1925, 65, 623

Uric acid—continued:

Blood, distribution, uric
acid intravenous injec-
tion effect (CHRISTMAN
and ECKSTEIN)

1927, 75, 201

—, fat diet influence
(HARDING, ALLIN, and
EAGLES)

1927, 74, 631

—, fat-high diet effect
(HARDING, ALLIN,
EAGLES, and VAN
WYCK)

1925, 63, 37

—, sodium chloride influ-
ence (HARDING, ALLIN,
and VAN WYCK)

1924-25, 62, 61

Determination (JACKSON
and PALMER)

1922, 53, 373

(BENEDICT)

1922, 54, 233

—, blood (BENEDICT)

1922, 51, 187

(FOLIN)

1922, 54, 153

(BULMER, EAGLES, and
HUNTER)

1925, 63, 17

(BENEDICT)

1925, 64, 215

(BROWN)

1926, 68, 123

—, —, unknown substance
effect (HUNTER and
EAGLES)

1925, 65, 623

—, direct, urine (BENEDICT
and FRANK)

1922, 52, 387

—, Folin-Wu method, light
effect (ROGERS)

1923, 55, 325

Endogenous, excretion,
carbohydrate influence
(LEWIS and CORLEY)

1923, 55, 373

Uric acid—continued:

Endogenous, excretion,
fat influence (LEWIS and
CORLEY)

1923, 55, 373

Excretion (KOEHLER)

1924, 60, 721

—, organic acids effect
(GIBSON and DOISY)

1923, 55, xvii, 605

Folin-Wu method, modifi-
cation (PUCHER)

1922, 52, 329

— —, variables (PUCHER)

1922, 52, 317

Formation, *Panulirus argus*
(MORGULIS)

1925, 63, xviii

Lymph, distribution, uric
acid intravenous injec-
tion effect (CHRISTMAN
and ECKSTEIN)

1927, 75, 201

Metabolism. III (LEWIS
and CORLEY)

1923, 55, 373

Problem. (FOLIN, BERG-
LUND, and DERICK)

1924, 60, 361

Reagent, Folin-Denis, in-
sulin behavior towards
(DU VIGNEAUD)

1927, 74, xvii

—, preparation (FOLIN and
TRIMBLE)

1924, 60, 473

Retention, fasting (LEN-
NOX)

1925, 66, 521

Urine, determination,
direct (BENEDICT and
FRANKE)

1922, 52, 387

Uricase:

(CALVERY)

1927, 73, 77

Uridine:

Hydrazine hydrate action
(LEVENE and BASS)

1926-27, 71, 167

Urine:

Acetone bodies, normal
(HUBBARD and NOBACK)

1925, 63, 391

— —, determination,
colorimetric (BEHRE and
BENEDICT)

1926, 70, 487

— —, ketogenic diet
effect (McQUARRIE and
KEITH)

1927, 74, xvi

Acidity (MORGULIS and
HAMSA)

1927, 74, 851

I (BLATAERWICK and
LONG)

1922, 53, 103

II (BLATHERWICK and
LONG)

1923, 57, 815

—, cranberries, effect
(BLATHERWICK and
LONG)

1923, 57, 815

—, orange juice effect
(BLATHERWICK and
LONG)

1922, 53, 103

—, prunes, effect (BLATH-
ERWICK and LONG)

1923, 57, 815

—, sour milk effect
(BLATHERWICK and
LONG)

1922, 53, 103

Adrenalin, color reaction
(FRIEND)

1923, 57, 497

Allantoin determination
(CHRISTMAN)

1926, 70, 173

Urine—continued:

- Alligator, nitrogen distribution (HOPPING and SCOTT)
1923, 55, xxxiii
- Amino acid nitrogen, determination, colorimetric, in normal (FOLIN)
1922, 51, 393
- Ammonia, origin (LOEB, ATCHLEY, and BENEDICT)
1924, 60, 491
- III (RABINOWITCH)
1926, 69, 283
- Base, total, determination (FISKE)
1922, 51, 55
- Bicarbonate (GAMBLE)
1922, 51, 295
- Bile acids, determination (SCHMIDT and MERRILL)
1923-24, 58, 601
- Calcium excretion, potassium influence (MILLER)
1926, 70, 593
- Camel (READ)
1925, 64, 615
- Carbohydrate, normal (GREENWALD)
1923, 55, xiv
- Carbonic acid (GAMBLE)
1922, 51, 295
- Chlorides, inorganic, intravenous injection effect (WHELAN)
1925, 63, 585
- , sleep effect (SIMPSON)
1926, 67, 505
- , waking effect (SIMPSON)
1925, 63, xxxii
- Chlorine excretion, potassium influence (MILLER)
1923, 55, 45
- (MILLER)
1926, 70, 593
- Citric acid determination, pentabromoacetone method (McCLURE)
1922, 53, 357

Urine—continued:

- Cystine determination (LEWIS and WILSON)
1926, 69, 125
- —, colorimetric (LOONEY)
1922, 54, 171
- Diabetes insipidus, unknown substance (ILLIEVITZ)
1926-27, 71, 693
- Electrometric titration (MORGULIS and HAMSA)
1927, 74, 851
- Excretion, short intervals, diurnal variations in (SIMPSON)
1924, 59, 107
- Exercise effect (WILSON, LONG, THOMPSON, and THURLOW)
1925, 65, 755
- Fasting effect (SIMPSON)
1925, 63, xxxii
- Formic acid determination (BENEDICT and HARROP)
1922, 54, 443
- Glomerulus, chlorides, frog (WEARN and RICHARDS)
1925, 66, 247
- Glucose, nature (AUSTIN and BOYD)
1925, 63, xxii
- Guanidines, parathyroidectomy (GREENWALD)
1924, 59, 329
- Hen, nitrogenous constituents (DAVIS)
1927, 74, 509
- Homogentisic acid, determination, colorimetric (BRIGGS)
1922, 51, 453
- Hydrogen ion concentration, carbon dioxide loss, effect (MARSHALL)
1922, 51, 3

Urine—continued:

Hydrogen ion concentration determination
(MEEKER and OSER)

1926, 67, 307

— — —, colorimetric
(HASTINGS, SENDROY,
and ROBSON)

1925, 65, 381

— — —, sleep effect (SIMPSON)

1926, 67, 505

— — —, waking effect
(SIMPSON)

1925, 63, xxxii

Imidazole excretion
(KOESSLER and HANKE)

1924, 59, 803

— —, nephritis (KOESSLER
and HANKE)

1924, 59, 803

Ketone bodies, hypoglycemia following insulin,
occurrence (COLLIP)

1923, 55, xxxviii

Lactic acid excretion, exercise effect (LILJESTRAND
and WILSON)

1925, 65, 773

Lactose determination
(HASKINS)

1926, 67, lx

Lead determination (FAIRHALL)

1924, 60, 485

Menthol glycuronic acid,
determination (QUICK)

1924, 61, 667

Nitrogen distribution, alligator (HOPPING and
SCOTT)

1923, 55, xxxiii

— —, phenylacetic acid
influence (HUTIKATA)

1922, 51, 141

— —, phenylpropionic acid
influence (HUTIKATA)

1922, 51, 141

Urine—continued:

Nitrogen partition, hydrocarpates influence
(READ)

1924-25, 62, 541

— — products, protein-free diet, effect (SANDIFORD,
SANDIFORD,
DEUEL, and BOOTHBY)

1926, 67, xxiv

— — —, — diet; protein feeding effect (SANDIFORD,
SANDIFORD,
DEUEL, and BOOTHBY)

1926, 67, xxiv

— — —, thyroxine effect, protein-free diet (SANDIFORD,
SANDIFORD,
DEUEL, and BOOTHBY)

1926, 67, xxiv

—, residual fraction, composition (ROWE and
PROCTOR)

1927, 74, iii

Nitrogenous constituents,
hen (DAVIS)

1927, 74, 509

Organic acid excretion, diet effect (McLAUGHLIN and
BLUNT)

1923-24, 58, 267

— acids, orange juice effect, children (CHANNEY and
BLUNT)

1925, 66, 829

1926, 67, xxxi

— —, titration (PALMER)

1926, 68, 245

Phosphorus excretion,
potassium influence
(MILLER)

1926, 70, 593

—, organic (YOUNGBURG
and PUCHER)

1924-25, 62, 31

— —, —, determination
(YOUNGBURG and
PUCHER)

1924-25, 62, 31

Urine—continued:

Picrate, normal, nature,
Findlay and Sharpe
method (WHITE)

1926-27, 71, 419

Pigment, normal (DRAB-
KIN) 1926, 67, xl

I (DRABKIN)

1927, 75, 443

II (DRABKIN)

1927, 75, 481

—, —, extraction (DRAB-
KIN) 1927, 74, xv

—, —, output, basal
metabolism, relationship
(DRABKIN)

1927, 75, 481

— output, diet relation-
ship (DRABKIN)

1927, 75, 443

—, —, metabolism relation-
ship (DRABKIN)

1927, 75, 443

Protein, fractional precipi-
tation (ROSE and
EXTRON)

1926, 67, xli

Reducing substance, glu-
cose, commercial granu-
lar, alcoholic extract,
effect (WANG and FEL-
SHER) 1924, 61, 659

—, —, — granular, effect
(WANG and FELSHER)

1924, 59, liii

Sodium benzoate ingestion
effect (SWANSON)

1924-25, 62, 565

— excretion, potassium
influence (MILLER)

1923, 55, 45

(MILLER)

1926, 70, 593

Sugar (FOLIN and SVED-
BERG) 1926, 70, 405

Urine—continued:

Sugar determination
(SUMNER)

1925, 65, 393

(KINGSBURY)

1927, 75, 241

—, —, colorimetric, nor-
mal (FOLIN and BERG-
LUND) 1922, 51, 209

—, —, normal (FOLIN)

1926, 67, 357

(BENEDICT)

1926, 68, 759

—, diabetes, determination
(SUMNER)

1924-25, 62, 287

— excretion (NEUWIRTH)

1922, 51, 11

—, —, normal (BLATHER-
WICK, BELL, HILL, and
LONG) 1925, 66, 801

—, nature, normal (GREEN-
WALD, GROSS, and Mc-
GUIRE)

1927, 75, 491

—, normal I (GREEN-
WALD, SAMET, and
GROSS)

1924-25, 62, 397

II (GREENWALD, GROSS,
and SAMET)

1924-25, 62, 401

—, total (EVERETT, SHOE-
MAKER, and SHEPPARD)

1927, 74, 739

—, —, determination
(EVERETT and SHOE-
MAKER)

1927, 74, vi

— variations (KINGSBURY)

1926, 67, xviii

Sugars, nature (EAGLE)

1926-27, 71, 481

Sulfur compounds, deter-
mination, nephelometric
(DENIS and REED)

1926-27, 71, 205

Urine—continued:

Sulfur compounds, sulfur administration effect (DENIS and REED)

1927, 73, 51

—, fasting steers (CARPENTER)

1923, 55, iii

Urea excretion, volume changes effect (ADDIS and DRURY)

1923, 55, 639

Uric acid determination, direct (BENEDICT and FRANKE)

1922, 52, 387

Zinc excretion (DRINKER, FEHNEL, and MARSH)

1927, 72, 375

Uterus:

Fibroid extracts, ester-hydrolyzing actions, time changes in (NOYES and FALK)

1927, 72, 475

Muscle extracts, ester-hydrolyzing actions, time changes in (NOYES and FALK)

1927, 72, 475

Vacuole:

Leaf cells, extraction (CHIBNALL)

1923, 55, 333

Valeric acid:

δ -Amino-, phlorhizinized dog, fate (CORLEY)

1926, 70, 99

Valine:

Zein, presence (DAKIN)

1924, 61, 137

Vanillin-hydrochloric acid reaction:

Tryptophane determination, colorimetric (KRAUS)

1925, 63, 157, lxxv

Van Slyke:

Apparatus, total oxygen-combining power, blood (LUNDSGAARD and MÖLLER)

1922, 52, 377

Carbon dioxide method, ether presence, blood serum (AUSTIN)

1924, 61, 345

Factors, nitrogen conversion to amino nitrogen (SHARP)

1924, 60, 77

Gas analysis apparatus, trap for (SHOHL)

1923, 56, 125

Vegetable:

Antirachitic properties, ultra-violet irradiation, green (HESS and WEINSTOCK)

1924-25, 62, 301

Calcium utilization by man (BLATHERWICK and LONG)

1922, 52, 125

Green, antirachitic properties, ultra-violet irradiation (HESS and WEINSTOCK)

1924-25, 62, 301

Phosphorus utilization by man (BLATHERWICK and LONG)

1922, 52, 125

Protein, alcohol-soluble, immunological properties. IX (LEWIS and WELLS)

1925, 66, 37

—, biological reactions (LEWIS and WELLS)

1925, 66, 37

Vegetable oil:

Fertility, rôle (SURE)

1926, 69, 29

Lactation, rôle (SURE)

1926, 69, 29

Vegetable oil—continued:

Vitamin E distribution
(SURE) 1925, 63, lxxiv

Velvet bean:

See Bean.

Vernine:

Caffeine origin, relation
(CAMARGO)

1923-24, 58, 831

Coffee tree, caffeine origin,
relation (CAMARGO)

1923-24, 58, 831

Vigna sinensis:

See Pea, cow-.

Vitamin(s):

XI (DUTCHER, CREIGHTON,
and ROTHEROCK)

1925, 66, 401

XIV (DUTCHER and
KRUGER)

1926, 69, 277

XVI (DUTCHER, HONEYWELL,
and DAHLE)

1927, 75, 85

A and D, differentiation,
quantitative. I (SHERMAN
and HESSLER)

1927, 73, 113

—, butter fat, sulfuric acid
reaction (SjÖRSLEV)

1924-25, 62, 487

—, chemistry (DRUMMOND,
CHANNON, and COWARD)

1926, 67, p. 1

— deficiency, nitrogen
metabolism effect (MORGAN
and OSBURN)

1925, 66, 573

— destruction, oil inhibition
effect (ESTILL and McCOLLUM)

1927, 75, 157

— determination (STEENBOCK,
NELSON, and BLACK)

1924, 59, ix

1924-25, 62, 275

Vitamin(s)—continued:

A determination (STEENBOCK
and COWARD)

1927, 72, 765

—, milk, human (MACY,
OUTHOUSE, GRAHAM,
and LONG)

1927, 73, 175

—, fats, inactivating action
on other fats (FRIDERICIA)

1924-25, 62, 471

— formation, plant tissues,
heat influence (COWARD)

1927, 72, 781

—, —, —, light influence
(COWARD)

1927, 72, 781

—, green plant tissues
(QUINN, BURTIS, and
MILNER)

1927, 72, 557

—, greenness association.

I (DYE, MEDLOCK, and
CRIST)

1927, 74, 95

—, lard (MALLON and
CLARK)

1922, 54, 763

—, lettuce (DYE, MEDLOCK,
and CRIST)

1927, 74, 95

—, milk (OUTHOUSE,
MACY, BREKKE, and
GRAHAM)

1927, 73, 203

—, —, evaporated
(DUTCHER, HONEYWELL,
and DAHLE)

1927, 75, 85

—, —, human (MACY,
OUTHOUSE, LONG, and
HOOBLER)

1926, 67, li

—, —, —, determination
(MACY, OUTHOUSE,
GRAHAM, and LONG)

1927, 73, 175

Vitamin(s)—*continued*:

A, milk, irradiated, potency
(SUPPLEE and DOW)

1927, 75, 227

—, ophthalmia on diets
containing (MCCOLLUM,
SIMMONDS, and BECKER)

1925, 64, 161

—, photosynthesis, rela-
tion (WILSON)

1922, 51, 455

— requirement, chick
(HART, STEENBOCK,
LEPKOVSKY, and HAL-
PIN)

1924, 60, 341

— storage (SHERMAN and
CAMMACK)

1926, 68, 69

Antineuritic and water-
soluble B, identity
(LEVENE and MUHL-
FELD)

1923, 57, 341

— — — growth-promoting
substances, differentia-
tion (HAUGE and CAR-
RICK)

1926, 69, 403

—, brewers' yeast (SEI-
DELL)

1926, 67, 593

—, water-soluble B, chloro-
phyll-free plants (ORTON,
MCCOLLUM, and SIM-
MONDS)

1922, 53, 1

—, —, glacial acetic acid
as solvent (LEVINE, Mc-
COLLUM, and SIMMONDS)

1922, 53, 7

Antirachitic, *n*-butyl nitrite
action (BILLS)

1925, 66, 451

—, calcium, intestine,
effect (YODER)

1927, 74, 321

—, criterion (STEENBOCK,
HART, JONES, and
BLACK)

1923-24, 58, 59

Vitamin(s)—*continued*:

Antirachitic, eggs, ultra-
violet light received by
hen, relation (HUGHES,
PAYNE, TITUS, and
MOORE)

1925, 66, 595

—, hydrogen ion concen-
tration, intestine, effect
(YODER)

1927, 74, 321

—, peroxidation, relation
(YODER)

1926, 70, 297

—, phosphorus, intestine,
effect (YODER)

1927, 74, 321

—, stability to saponifica-
tion (STEENBOCK, JONES,
and HART)

1923-24, 58, 383

Antiscorbutic. I (HART,
STEENBOCK, and LEP-
KOVSKY)

1922, 52, 241

—, solubility, desiccated
orange juice (HART,
STEENBOCK, and LEP-
KOVSKY)

1922, 52, 241

B. I (STEENBOCK, SELL,
and NELSON)

1923, 55, 399

II (STEENBOCK, SELL,
and JONES)

1923, 55, 411

—, appetite relation (Cow-
GILL, DEUEL, and SMITH)

1924, 59, xi

—, benzene solubility
(WILLIAMS and WATER-
MAN)

1926, 68, 499

—, biological test, bacterial
flora effect (HELLER,
McELROY, and GAR-
LOCK)

1925, 65, 255

Vitamin(s)—*continued*:

- B, carbohydrate utilization, rats deprived of (MATFILL) 1923, 55, 717
- complex, active factors (SALMON) 1927, 73, 483
- concentration (LEVENE and VAN DER HOEVEN) 1924, 61, 429
- II (LEVENE and VAN DER HOEVEN) 1925, 65, 483
- destruction by heat, hydrogen ion concentration effect (SHERMAN and BURTON) 1926, 70, 639
- determination (STEENBOCK, SELL, and NELSON) 1923, 55, 399 (SHERMAN and MACARTHUR) 1927, 74, 107 (SHERMAN and GLOY) 1927, 74, 117
- —, milk, human (MACY, OUTHOUSE, GRAHAM, and LONG) 1927, 73, 189
- —, rat for (GIVENS and BEHRENDT) 1924, 59, x
- , excreta, vitamin B-low diet (SALMON) 1925, 65, 457
- function (COWGILL, SMITH, and BEARD) 1925, 63, xxiii
- , green plant tissues (QUINN, BURTIS, and MILNER) 1927, 72, 557
- , growth relation (OSBORNE and MENDEL) 1925, 63, 233

Vitamin(s)—*continued*:

- B, Jendrassik reaction (BEZSSONOFF) 1925, 64, 589 (LEVINE) 1925, 64, 591
- , lactation requirement (SURE) 1927, 74, 55
- , liver, diet effect (OSBORNE and MENDEL) 1923-24, 58, 363
- , milk (OUTHOUSE, MACY, BREKKE, and GRAHAM) 1927, 73, 203
- , —, human (MACY, OUTHOUSE, LONG, and HOOBLER) 1926, 67, li
- , —, —, determination (MACY, OUTHOUSE, GRAHAM, and LONG) 1927, 73, 189
- , multiple nature, quantitative study (SHERMAN and AXTMAYER) 1927, 75, 207
- , nutrition rôle (OSBORNE and MENDEL) 1922, 54, 739
- , pigeon adequacy, study (EMMETT and PEACOCK) 1925, 63, xxiii
- , rat adequacy, study (EMMETT and PEACOCK) 1925, 63, xxiii
- , requirement, protein intake, relation (SHERMAN and GLOY) 1927, 74, 117
- , storage (STEENBOCK, SELL, and JONES) 1923, 55, 411

Vitamin(s)—*continued*:

- B, sugar utilization by rats deprived of (MAT-
TILL) 1923, 55, xxv
—, technique for study (McCOLLUM, SIMMONDS, and BECKER) 1925, 63, 547
(SMITH, COWGILL, and CROLL) 1925, 66, 15
—, water-soluble, yeast synthesis (MACDONALD) 1922, 54, 243
—, yeast (HELLER) 1923, 55, 385
—, — source (KENNEDY and PALMER) 1922, 54, 217
B-low diet, vitamin B in excreta (SALMON) 1925, 65, 457
C, chicken requirement (HART, STEENBOCK, LEPKOVSKY, and HALPIN) 1925, 66, 813
—, green plant tissues (QUINN, BURTIS, and MILNER) 1927, 72, 557
—, liver, depletion, scorbutic ration (PARSONS and REYNOLDS) 1924, 59, 731
—, —, persistence, scorbutic ration (LEPKOVSKY and NELSON) 1924, 59, 91
—, milk and ration, relation (HUGHES, FITCH, CAVE, and RIDDELL) 1926-27, 71, 309
—, orange juice fermentation, effect (LEPKOVSKY, HART, HASTINGS, and FRAZIER) 1925, 66, 49

Vitamin(s)—*continued*:

- C preservation, orange juice, dried (HUMPHREY) 1926, 69, 511
—, tomato juice fermentation, effect (LEPKOVSKY, HART, HASTINGS, and FRAZIER) 1925, 66, 49
Calcium-depositing (McCOLLUM, SIMMONDS, BECKER, and SHIPLEY) 1922, 53, 293
Cod liver oil, stability (STEENBOCK, JONES, and HART) 1923, 55, xxvi
D and A, differentiation, quantitative. I (SHERMAN and HESSLER) 1927, 73, 113
—, butter fat, rickets factor (McCOLLUM, SIMMONDS, BECKER, and SHIPLEY) 1926, 70, 437
— distribution (BILLS) 1927, 72, 751
—, milk, evaporated (HONEYWELL, DUTCHER, and DAHLE) 1927, 74, lxxvii
— origin (BILLS) 1927, 72, 751
E, butter fat (SURE) 1927, 74, 71
—, cod liver oil (SURE) 1927, 74, 45
—, corn, yellow (SURE) 1924-25, 62, 371
—, evidence (SURE) 1925, 63, xxvi
—, hemp-seed (SURE) 1924-25, 62, 371
—, iron assimilation, relation (SIMMONDS, BECKER, and McCOLLUM) 1927, 74, lxxviii

Vitamin(s)—continued:

- E, lactation rôle (SURE)
 1926, 67, xlix
 —, reproduction, milk
 diets (MATTELL and
 CLAYTON)
 1926, 67, xlix
 1926, 68, 665
 —, —, synthetic diets
 (MATTELL and CLAYTON)
 1926, 67, xlix
 1926, 68, 665
 — solubility, organic sol-
 vents (SURE)
 1925, 63, 211
 —, vegetable oils, distribu-
 tion (SURE)
 1925, 63, lxxiv
 —, wheat embryo (SURE)
 1924-25, 62, 371
 —, wheat oil (SURE)
 1927, 74, 45
 —. *See also* X substance.
 Fat-soluble. X (STEEN-
 BOCK and SELL)
 1922, 51, 63
 XI (STEENBOCK, SELL,
 and NELSON)
 1923, 56, 327
 XII (STEENBOCK, SELL,
 and JONES)
 1923, 56, 345
 XIII (STEENBOCK and
 NELSON)
 1923, 56, 355
 XIV (STEENBOCK, HART,
 JONES, and BLACK)
 1923-24, 58, 59
 XV (BETHKE, STEEN-
 BOCK, and NELSON)
 1923-24, 58, 71
 XVI (STEENBOCK,
 JONES, and HART)
 1923-24, 58, 383
 XVII (STEENBOCK and
 BLACK)
 1924, 61, 405

Vitamin(s)—continued:

- Fat-soluble. XVIII
 (STEENBOCK, HART, and
 JONES) 1924, 61, 775
 XIX (STEENBOCK and
 NELSON)
 1924-25, 62, 209
 XX (STEENBOCK, NEL-
 SON, and BLACK)
 1924-25, 62, 275
 XXI (NELSON and
 STEENBOCK)
 1924-25, 62, 575
 XXIII (STEENBOCK and
 BLACK)
 1925, 64, 263
 XXIV (NELSON and
 STEENBOCK)
 1925, 64, 299
 XXVI (STEENBOCK,
 HART, HOPPERT, and
 BLACK)
 1925, 66, 441
 XXVII (STEENBOCK and
 COWARD)
 1927, 72, 765
 — A, ophthalmia relation
 (MCCOLLUM, SIMMONDS,
 and BECKER)
 1922, 53, 313
 —, calcium intake, blood
 composition, relation
 (BETHKE, STEENBOCK,
 and NELSON)
 1923-24, 58, 71
 —, — —, bone composi-
 tion, relation (BETHKE,
 STEENBOCK, and NEL-
 SON)
 1923-24, 58, 71
 —, — —, growth relation
 (BETHKE, STEENBOCK,
 and NELSON)
 1923-24, 58, 71
 —, chick requirement
 (EMMETT and PEACOCK)
 1923, 56, 679

Vitamin(s)—continued:

- Fat-soluble, egg yolk, ration effect (BETHKE, KENNARD, and SASSAMAN) 1927, 72, 695
- , millets (STEENBOCK, SELL, and JONES) 1923, 56, 345
- , nutrition, adult (SHERMAN and MACLEOD) 1924, 59, xlv
- , phosphorus intake, blood composition, relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71
- , —, bone composition, relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71
- , —, growth relation (BETHKE, STEENBOCK, and NELSON) 1923-24, 58, 71
- , storage (STEENBOCK, SELL, and NELSON) 1923, 56, 327
- , yellow plant pigments (STEENBOCK and SELL) 1922, 51, 63
- Growth-promoting, yeast, effect (DEAS) 1924, 61, 5
- , —, in cane-sugar (FUNK and FREEDMAN) 1923, 56, 851
- Lentil (JONES and MURPHY) 1924, 59, 243
- Nursing mother, requirements. I (SURE and SCHILLING) 1927, 74, lxxiv
- Reproductive, specific (SURE) 1923-24, 58, 693

Vitamin(s)—continued:

- Rice polishings, extraction (FUNK, HARROW, and PATON) 1923, 57, 153
- Stability, cod liver oil (STEENBOCK, JONES, and HART) 1923, 55, xxvi
- Starvation and metabolism, poultry (ANDERSON and KULP) 1922, 52, 69
- — respiratory exchange, poultry (ANDERSON and KULP) 1922, 52, 59
- Technique for study (MACY, OUTHOUSE, LONG, and GRAHAM) 1927, 73, 153
- Water-soluble B and anti-neuritic, identity (LEVINE and MUHLFELD) 1923, 57, 341
- , —, antineuritic substance, chlorophyll-free plants (ORTON, MCCOLLUM, and SIMMONDS) 1922, 53, 1
- , —, glacial acetic acid as solvent (LEVINE, MCCOLLUM, and SIMMONDS) 1922, 53, 7
- , —, color test (JENDRASIK) 1923, 57, 129
- , —, Jendrassik reaction (LEVINE) 1924-25, 62, 157
- , —, yeast growth (FULMER and NELSON) 1922, 51, 77
- , —, synthesis (MACDONALD) 1922, 54, 243
- constituents, alfalfa (OSBORNE, WAKEMAN, and LEAVENWORTH) 1922, 53, 411

Vitamin(s)—continued:

- Water-soluble growth-promoting and antineuritic substances, differentiation (HAUGE and CARRICK) 1926, 69, 403
 Yeast, extraction (FUNK, HARROW, and PATON) 1923, 57, 153

Vividialysis:

- Blood. I (POWER and GREENE) 1927, 74, xix

Volhard:

- Chloride determinations (WHITEHORN) 1927, 74, 299

Vomiting:

- Ammonia elimination, rôle (BLISS) 1926, 67, 109
 (BENEDICT and NASH) 1926, 69, 381

W**Waking:**

- Urine chlorides, effect (SIMPSON) 1925, 63, xxxii
 — hydrogen ion concentration, effect (SIMPSON) 1925, 63, xxxii

Walden inversion:

- I (LEVENE and MIKESKA) 1924, 59, 473
 II (LEVENE and MIKESKA) 1924, 60, 1
 III (LEVENE and MIKESKA) 1924, 60, 685
 XI (McKENZIE and TUDHOPE) 1924-25, 62, 551
 IX (LEVENE and WALTI) 1927, 73, 263
 X (LEVENE, MORI, and MIKESKA) 1927, 75, 337

Walden inversion—continued:

- XI (LEVENE and MIKESKA) 1927, 75, 587
 Carbinols, secondary (LEVENE and MIKESKA) 1927, 75, 587
 2-Hydroxycarboxylic acids (LEVENE, MORI, and MIKESKA) 1927, 75, 337

Walking:

- Energy expenditure (SMITH and DOOLITTLE) 1925, 65, 665

Water:

- Blood, bound (NEUHAUSEN) 1922, 51, 435
 — concentration, introduction of, effect (UNDERHILL and KAPSINOW) 1922, 54, 459
 —, distribution (VAN SLYKE, WU, and McLEAN) 1923, 56, 765
 —, free (NEUHAUSEN) 1922, 51, 435
 — serum, parathyroidectomy (HAMMETT) 1923, 55, x
 — —, thyroparathyroidectomy (HAMMETT) 1923, 55, x
 Bone, growth (HAMMETT) 1925, 64, 409
 —, —, parathyroid gland rôle (HAMMETT) 1927, 72, 505
 —, —, thyroid gland rôle (HAMMETT) 1927, 72, 505
 Deprivation, blood concentration effect (UNDERHILL and KAPSINOW) 1922, 54, 459
 (UNDERHILL and ROTH) 1922, 54, 607

Water—continued:

Determination, metabolism (LEE and BROWN)

1927, 73, 69

Diffusion (ADOLPH)

1925, 64, 339

—, lecithin-collodion membranes (ABRAMSON and GRAY)

1927, 73, 459

Elimination, lungs, sweat gland absence, effect (RICHARDSON)

1926, 67, 397

—, skin, sweat gland absence, effect (RICHARDSON)

1926, 67, 397

Ethyl iodide determination (STARRE and GAMBLE)

1926-27, 71, 509

Hydrogen ion concentration, colorimetric (STERN)

1925, 65, 677

Intoxication, mechanism (UNDERHILL and SALLICK)

1925, 63, 61

Irrigation, grain composition (GREAVES and CARTER)

1923-24, 58, 531

Lake, amino acids (PETERSON, FRED, and DOMOGALLA)

1925, 63, xl, 287

—, nitrogen (DOMOGALLA, JUDAY, and PETERSON)

1925, 63, 269

—, organic nitrogen compounds (PETERSON, FRED, and DOMOGALLA)

1925, 63, xl, 287

Metabolism, determination (LEE and BROWN)

1927, 73, 69

Water—continued:

Mineral, natural, aging (BAUDISCH and WELO)

1925, 64, 771

Sea, carbonic acid-carbonate equilibrium (IRVING)

1925, 63, 767

—, weak acids (IRVING)

1925, 63, 767

Water-soluble B:

See Vitamin.

Wax:

Coating, apple, constituents (SANDO)

1923, 56, 457

Wheat:

Bran, albumin (JONES and GERSDORFF)

1923-24, 58, 117

— and embryo, proteins, comparison (JONES and GERSDORFF)

1925, 64, 241

— — endosperm, proteins, comparison (JONES and GERSDORFF)

1925, 64, 241

—, globulin (JONES and GERSDORFF)

1923-24, 58, 117

—, prolamins (JONES and GERSDORFF)

1923-24, 58, 117

—, proteins. I (JONES and GERSDORFF)

1925, 64, 241

—, —, amino acids (JONES and GERSDORFF)

1925, 64, 241

—, —, free amino nitrogen (JONES and GERSDORFF)

1925, 64, 241

Wheat—continued:

Bran, proteins, nitrogen distribution (JONES and GERSDORFF)

1925, 64, 241

—, —, nutritive properties (MURPHY and JONES)

1926, 69, 85

Embryo and bran, proteins, comparison (JONES and GERSDORFF)

1925, 64, 241

—, vitamin E (SURE)

1924–25, 62, 371

Endosperm and bran, proteins, comparison (JONES and GERSDORFF)

1925, 64, 241

Gliadin, denaturation (GOTTENBERG and ALSBERG)

1927, 73, 581

—, hydrolysis product (VICKERY)

1923, 56, 415

—, — rate (VICKERY)

1922, 53, 495

—, preparation (DILL and ALSBERG)

1925, 65, 279

—, solubility (DILL and ALSBERG)

1925, 65, 279

—, specific rotation (DILL and ALSBERG)

1925, 65, 279

Nutritive value (HART, STEENBOCK, HUMPHREY, and HULCE)

1924–25, 62, 315

Triticum vulgare, α -glutelin (CSONKA and JONES)

1927, 73, 321

—, β -glutelin (CSONKA and JONES)

1927, 73, 321

Wheat—continued:

Whole, proteins, biological value for growth (MITCHELL and CARMAN)

1924, 60, 613

—, —, — for maintenance (MITCHELL and CARMAN)

1924, 60, 613

Wheat oil:

Unsaponifiable matter, lactation-promoting factor (SURE)

1926, 69, 53

Vitamin E (SURE)

1927, 74, 45

Whey:

Hydrogen ion concentration determination, colorimetric (SHARP and McINERNEY)

1926, 70, 729

Witte's peptone:

Hyperglycemia production (MENTEN and MANNING)

1927, 72, 255

Hypoglycemia production (MENTEN and MANNING)

1927, 72, 255

Wool:

Cholesterol (ECKSTEIN)

1927, 73, 363

Work:

Blood, effect (BOCK, DILL, HURXTHAL, LAWRENCE, COOLIDGE, DAITLEY, and HENDERSON)

1927, 73, 749

Heat production, fatigue influence, various subjects (WANG, STROUSE, and SMITH)

1927, 74, xxxvii

Muscle, fuel (HENDERSON and HAGGARD)

1925, 63, lxi

Work—continued:

Respiratory exchanges,
effect (BOCK, DILL,
HURXTHAL, LAWRENCE,
COOLIDGE, DAILEY, and
HENDERSON)

1927, 73, 749

Steady state, heavy
(HENDERSON, DILL, VAN
CAULAERT, FÖLLING,
and COOLIDGE)

1927, 74, xxxvi

Wyss:

Insulin assay (BISCHOFF,
MAXWELL, and BLATH-
ERWICK)

1926, 67, 547

X**X substance:**

Milk ration, influence
(MATTELL and CLAYTON)

1925, 63, xxvii

Sterility prevention, milk
rations, fat-high (MAT-
TELL, CARMAN, and
CLAYTON)

1924, 61, 729

Xanthosine:

Diazomethane action
(LEVENE)

1923, 55, 437

Xerophthalmia:

Radiant energy effect
(POWERS, PARK, and
SIMMONDS)

1923, 55, 575

Xylose:

Fate, intravenous adminis-
tration (CORLEY)

1926, 70, 521

Xyloside:

Uracil, substituted
(LEVENE and SOBOTKA)

1925, 65, 469

Yeast:

V (HELLER)

1923, 55, 385

VII (NELSON, HELLER,
and FULMER)

1923, 57, 415

Adenosine hexoside
(LEVENE)

1924, 59, 465

Alcohol fermentation by,
L-malic acid formation
(DAKIN)

1924, 61, 139

Bakers', bios requirement
(WILLAMAN and OLSEN)

1923, 55, 815

Bile salt metabolism, rela-
tion (SMYTH and WHIP-
PLE)

1924, 59, 647

Bios synthesis (MAC-

DONALD)

1923, 56, 489

Brewers', antineuritic vita-
min (SEIDELL)

1926, 67, 593

By-product (HEPBURN)

1923, 55, xli

Calcium assimilation, influ-
ence (BOGERT and
TRAIL)

1922, 54, 387

Choline (VICKERY)

1926, 68, 585

Dietary properties (NEL-
SON, HELLER, and FUL-
MER)

1923, 57, 415

Growth, bios (FULMER and
NELSON)

1922, 51, 77

—, synthetic medium
(FULMER, NELSON, and
WHITE)

1923, 57, 397

—, water-soluble B (FUL-
MER and NELSON)

1922, 51, 77

Yeast—continued:

Growth-promoting vitamin, effect (DEAS)

1924, 61, 5

— — in cane-sugar (FUNK and FREEDMAN)

1923, 56, 851

Magnesium assimilation, influence (BOGERT and TRAIL)

1922, 54, 753

Metabolism. I (BALLS and BROWN)

1924-25, 62, 789

II (BROWN and BALLS)

1924-25, 62, 823

—, alcohol in (BROWN and BALLS)

1924-25, 62, 823

—, carbon dioxide in (BROWN and BALLS)

1924-25, 62, 823

Milk ration, addition, fertility influence (MATTILL and CONGDON)

1924, 59, xii

Nicotinic acid (VICKERY)

1926, 68, 585

Nitrogen nutrition (SWOBODA)

1922, 52, 91

Nitrogenous constituents. I (VICKERY)

1926, 68, 585

Nucleic acid hydrolysis, dilute alkali (LEVENE)

1923, 55, 9

— —, magnesium compound, preparation (BAUMANN)

1924, 61, 1

— —, nitrogenous components (LEVENE)

1926, 67, 325

— —, nucleotide formation, boiled pancreas action (JONES and PERKINS)

1923, 55, 557

Yeast—continued:

Nucleic acid, nucleotide formation, sodium hydroxide action (JONES and PERKINS)

1923, 55, 567

— —, pentose determination, micro (HOFFMAN)

1927, 73, 15

— —, sodium carbonate action (CALVERY)

1927, 72, 27

Phospholipids (AUSTIN)

1924, 59, lii

Phosphorus assimilation, influence (BOGERT and TRAIL)

1922, 54, 753

Thio sugar (LEVENE and SOBOTKA)

1925, 65, 551

Vitamin B (HELLER)

1923, 55, 385

— — source (KENNEDY and PALMER)

1922, 54, 217

Vitamins extracted from (FUNK, HARROW, and PATON)

1923, 57, 153

Water-soluble B, synthesis by (MACDONALD)

1922, 54, 243

Zea mays:

See Corn.

Zein:

Valine in (DAKIN)

1924, 61, 137

Zeisel:

Ethoxyl-containing compounds, modified procedure (EATON and WEST)

1927, 75, 283

Zeisel—continued:

Methoxyl-containing compounds, modified procedure (EATON and WEST)

1927, 75, 283

Sulfur-containing compounds, modified procedure (EATON and WEST)

1927, 75, 283

Zinc:

Excretion, feces (DRINKER, FEHNEL, and MARSH)

1927, 72, 375

Zinc—continued:

Excretion, urine (DRINKER, FEHNEL, and MARSH)

1927, 72, 375

Marine animals (SEVERY)

1923, 55, 79

Metabolism, normal, calcium metabolism, relation (FAIRHALL)

1926, 70, 495

Nutrition and (HUBBELL and MENDEL)

1927, 75, 567

Toxicity (HELLER and BURKE)

1927, 74, 85

THE JOURNAL OF BIOLOGICAL CHEMISTRY

FOUNDED BY CHRISTIAN A. HERTER AND SUSTAINED IN PART BY THE CHRISTIAN A. HERTER
MEMORIAL FUND

EDITED FOR THE AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS

EDITORIAL BOARD

RUDOLPH J. ANDERSON
STANLEY R. BENEDICT
W. MANSFIELD CLARK

ELMER V. MCCOLLUM
LAFAYETTE B. MENDEL
DONALD D. VAN SLYKE

INDEX

VOLUMES 76-100

1928-1933

COMPILED BY
ISAAC NEUWIRTH

Linlithgow Library
Imperial Agricultural Research Institute,
New Delhi
NEW YORK

1934

16839

COPYRIGHT 1934
BY
THE JOURNAL OF BIOLOGICAL CHEMISTRY

PUBLISHED AT CORNELL UNIVERSITY MEDICAL COLLEGE FOR
THE JOURNAL OF BIOLOGICAL CHEMISTRY, INC.
WAVERLY PRESS, INC.
BALTIMORE, U. S. A.

AUTHOR INDEX

- Abel, Marjorie G. See MILLER
and ABEL, 100, 731
- Abramson, Harold A. See WIN-
TERSTEINER and ABRAMSON,
99, 741
- . The electric charge of amino
acid crystals in aqueous elec-
trolytes, 100, iii
- Adams, Georgian, and McCollum,
E. V. A method for the bio-
logical assay of cod liver oil,
78, 495
- Adams, Mildred. See SHERMAN,
CALDWELL, and ADAMS,
88, 295
- . An investigation of the con-
ditions influencing the use of
the citric acid enzyme in cu-
cumber seeds as a means of
quantitatively determining the
presence of citric acid,
92, lxxiv
- , Bollman, Jesse L., and Booth-
by, Walter M. Comparison of
results obtained by the Bene-
dict oxycalorimeter with those
by elementary analysis,
97, xci
- . Metabolism studies follow-
ing the administration of gly-
cine, 100, iii
- . See POWER and ADAMS,
100, lxxx
- Adams, W. L. See BING, ADAMS,
and BOWMAN, 97, cvii
- Aitken, Harry A. A simple con-
tinuous dialyzer, 90, 161
- Aitkenhead, William. See
HAUGE and AITKENHEAD,
93, 657
- Aldrich, Martha, and Bledsoe,
Mary Sue. Studies in the me-
tabolism of the bile. I. A
quantitative Pettenkofer test
applicable to the determina-
tion of bile acids in the blood,
77, 519
- . See GREENE, ALDRICH, and
ROWNTREE, 80, 753
- Alexieff, Anna. See GOETTSCH
and BROWN, 97, 549
- Allen, Frank Worthington, and
Luck, James Murray. The
oxidation of dioxanthidryl urea
by means of the dichromate
reaction. A new method for
determining urea, 82, 693
- and Cerecedo, Leopold R.
Studies on purine metabolism.
I. A new method for the deter-
mination of allantoin in dog
urine, 93, 293
- Allen, Willard M. The prepara-
tion of purified progestin,
98, 591
- Alles, Gordon A. See COHN,
MINOT, ALLES, and SALTER,
77, 325

The Journal of Biological Chemistry

Alles, Gordon A.—*continued.*

—, See CONANT, ALLES, and TONGBERG, 79, 89

Allison, Catherine B. See HUBBARD and ALLISON, 89, 627

—, See HUBBARD, MUNFORD, TYNER, and ALLISON, 92, xxix

Allison, Crispin L. See WRIGHT and ALLISON, 100, 1

Almquist, H. J., and Greenberg, David M. Change of rotatory power of purified egg albumin as evidence of the mode of combination of acid and alkali with proteins, 93, 167

Alsberg, Carl L. See STONE and ALSBERG, 78, 557

—, See PETREE and ALSBERG, 82, 385

—, See SAHYUN and ALSBERG, 83, 129
89, 33
93, 235

Amberg, Samuel, and Landsbury, J. Demonstration of small amounts of calcium, 78, xlvii

Amsden, Maurice R. See LUCK and AMSDEN, 92, lxxv

Anderson, Arthur K., Honeywell, Hannah E., Santy, Albert C., and Pedersen, Svend. The composition of normal rat blood, 86, 157

Anderson, B. G. See ARNIM, CLARKE, ANDERSON, and SMITH, 100, viii

Anderson, E. M. The physiological properties of the thyrotropic hormone, 100, iv

Anderson, Edmund G. E. See BUNKER and ANDERSON, 77, 473

Anderson, Ernest. Studies on the hemicelluloses. I. The evolution of carbon dioxide by plant materials and some hemicelluloses under the action of boiling twelve per cent hydrochloric acid, 91, 559
— and Kinsman, Simon. Studies on the hemicelluloses. II. The composition of the hemicellulose from cottonseed hulls, 94, 39

—, The preparation of *l*-galactose from flaxseed mucilage, 100, 249

Anderson, Hilding C. See MCCLENDON, ANDERSON, STEGGERDA, CONKLIN, and WHITAKER, 77, 413

Anderson, R. J. See SHRINER and ANDERSON, 80, 743

—, The chemistry of the lipoids of tubercle bacilli. III. Concerning phthioic acid. Preparation and properties of phthioic acid, 83, 169

—, IV. Concerning the so called tubercle bacilli wax. Analysis of the purified wax, 83, 505

— and Chargaff, Erwin. The chemistry of the lipoids of tubercle bacilli. V. Analysis of the acetone-soluble fat, 84, 703

— and —, VI. Concerning tuberculostearic acid and phthioic acid from the acetone-soluble fat, 85, 77

Authors

- The chemistry of the lipoids of tubercle bacilli. VII. Analysis of the soft wax from tubercle bacilli, 85, 327
- VIII. Concerning the unsaponifiable wax, 85, 339
- IX. The occurrence of hexacosanic acid in the unsaponifiable wax, 85, 351
- and Roberts, E. Gilman. The chemistry of the lipoids of tubercle bacilli. X. The separation of lipid fractions from avian tubercle bacilli, 85, 509
- and —. XI. The phosphatide fraction of the avian tubercle bacilli, 85, 519
- and —. XII. The separation of the lipid fractions from bovine tubercle bacilli, 85, 529
- and —. Concerning the carbohydrates associated with the ether-soluble lipoids of tubercle bacilli, 87, xvii
- and —. The chemistry of the lipoids of tubercle bacilli. XIX. Concerning the composition of the phosphatide fraction isolated from the bovine type of tubercle bacilli, 89, 599
- and —. XX. The occurrence of mannose and inosite in the phosphatide fractions from the human, avian, and bovine tubercle bacilli, 89, 611
- See ROBERTS and ANDERSON, 90, 33
- See CHARGAFF, PANGBORN, and ANDERSON, 90, 45
- See PANGBORN and ANDERSON, 92, xxxii
- See BURT and ANDERSON, 94, 451
- See PANGBORN and ANDERSON, 94, 465
- See UYEI and ANDERSON, 94, 653
- See BENGIS and ANDERSON, 97, 99
- See CROWDER and ANDERSON, 97, 393
- and Uyei, Nao. The chemistry of the lipids of tubercle bacilli. XXVII. The composition of the phosphatide fraction of the *Bacillus lepræ*, 97, 617
- The chemistry of the lipids of tubercle bacilli. XXVIII. Studies on phthioic acid. Isolation of a levorotatory acid from the phthioic acid fraction of the human tubercle bacillus, 97, 639
- See PANGBORN, CHARGAFF, and ANDERSON, 98, 43
- and Newman, Melvin S. Identification of trehalose as the higher alcohol combined in the acetone-soluble fat of the tubercle bacillus, 100, iv
- Anderson, William E., and Mendel, Lafayette B. The relation of diet to the quality of fat produced in the animal body, 76, 729
- See MCAMIS, ANDERSON, and MENDEL, 82, 247
- See REED, YAMAGUCHI, ANDERSON, and MENDEL, 87, 147

The Journal of Biological Chemistry

- Anderson, William E.**—*continued.*
 —. See REED, ANDERSON, and MENDEL, 96, 313
Andes, Jerome E., and Myers, Victor C. Studies on the guanidine content of human blood, 97, cix
Andrew, Robert H. See FENGER, ANDREW, and RALSTON, 80, 187
Andrews, James C. The deamination of cystine in alkaline solutions, 78, lxiii
 —. The alkaline decomposition of cystine, 80, 191
 —. Note on a previously undescribed form of tyrosine crystals, 83, 353
 — and Wyman, Pauline D. Mercury derivatives of cysteine, 87, 427
 —. See MILLER and ANDREWS, 87, 435
 —. The deamination of cystine, 87, 681
 —. See BERGMANN, ANDREWS, and ANDREWS, 92, xxxvii
 —. The racemization and decomposition of cystine in acid solution, 97, xix
 —. The oxidation of cystine in acid solution, 97, 657
 100, iv
 — and Andrews, Kathleen Crandall. The preparation and properties of cysteic acid phenylhydantoin, 100, vi
 — and Johnston, Charles G. The absorption of certain sulfur compounds from intestinal loops of dogs, 100, vii
- Andrews, Kathleen Crandall.**
 See BERGMANN, ANDREWS, and ANDREWS, 92, xxxvii
 —. See ANDREWS and ANDREWS, 100, vi
Andrus, E. Cowles. See BUELL, STRAUSS, and ANDRUS, 98, 645
Angell, H. R. See LINK, ANGELL, and WALKER, 81, 369
Angevine, Robert W. Fat excretion. VI. Excretion by Thyrivella fistulas, 82, 559
 —. See SPERRY and ANGEVINE, 87, xxii
 96, 769
Anslow, Gladys A. See FOSTER, ANSLOW, and BARNES, 89, 665
 — and Foster, Mary Louise. The influence of substituent groups on the visible and ultra-violet absorption spectra of amino acids and related substances, 97, 37
Anson, M. L. See MIRSKY and ANSON, 81, 581
Appleman, W. K. See SCHMIDT, APPLEMAN, and KIRK, 81, 723
 85, 137
 —. See SCHMIDT, KIRK, and APPLEMAN, 88, 285
Arenstam, Jacob J. See DIONNE and ARENSTAM, 87, 393
Ariyama, Noboru. Studies on glyoxals, 77, 359
 —. The formation of methylglyoxal from hexosephosphate in the presence of tissues, 77, 395

Authors

- and Shaffer, Philip A. Potentiometric determination of relative reducing rates of sugars for ferricyanide and iodine, 78, li
 - Armstrong, Lillian. See HUNSCHER, COPE, NOLL, MACY, COOLEY, PENBERTHY, and ARMSTRONG, 97, lxiv
 - Arnim, S. S., Clarke, Miriam F., Anderson, B. G., and Smith, Arthur H. Changes in teeth of rats consuming a ration extremely low in inorganic salts, 100, viii
 - Arnold, Audra, and Luck, James Murray. Studies on arginine. III. The arginine content of vertebrate and invertebrate muscle, 99, 677
 - Arthur, Barbara. See WRIGHT and ARTHUR, 90, 757
 - Ashby, Gerald. See BILLS, MASENGALE, and PRICKETT, 87, 259
 - Asher, Dorothy E. See SHELLING, 96, 195, 215, 229
 - Asher, Dorothy W., and Jones, James H. Effect of irradiated ergosterol after the removal of the parathyroid glands from rats, 100, 333
 - Audrieth, L. F. See DU VIGNEAUD, AUDRIETH, and LORING, 87, xxx
 - Ault, W. C. See BROWN and AULT, 89, 167
 - Austin, J. Harold. See DRABKIN and AUSTIN, 98, 719
 - and Drabkin, David L. A technique for the spectrophotometric study of undiluted blood, 100, x
 - See DRABKIN and AUSTIN, 100, xxxvi
 - Austin, W. C., Smalley, C. J., and Sankstone, M. I. Changes of *l*-arabinose and *d*-xylose under the influence of dilute alkali, 92, xviii
 - and Prusait, Walter. The transformation of *d*-glucose into *d*-fructose by pyridine, 97, lxxx
 - and Humoller, Fred L. Comparative studies in the synthesis of *l*-ribose, 100, x
 - Avery, B. F., and Hastings, A. Baird. A gasometric method for the determination of lactic acid in the blood, 94, 273
- B
- Babers, Frank H., and Goebel, Walther F. The molecular size of the Type III specific polysaccharide of pneumococcus, 89, 387
 - See GOEBEL and BABERS, 100, 573, 743
 - Bacharach, A. L., and Jephcott, H. Vitamin D and fecal reaction, 82, 751
 - Bachem, Albert. See BOOR and BACHEM, 85, 743
 - Baernstein, Harry D. The conductivity method and proteolysis. II. The effect of amino nitrogen on the conductivity, 78, xlii
 - II. An interpretation of the conductivity changes, 78, 481
 - The gasometric determination of cysteine and cystine, 89, 125

- Baernstein, Harry D.**—*continued.*
 —. Sulfur distribution in proteins, 97, xxv
 —. The determination of methionine in proteins, 97, 663
 —. The sulfur distribution in proteins, 97, 669
- Baker, James P.** See SMITH, 81, 407
- Baker, Reginald W.** See BING and BAKER, 92, lxxiii, 589
 —. See BEARD, BAKER, and MYERS, 94, 123
- Bakwin, Harry.** See BODANSKY, BAKWIN, and BAKWIN, 94, 551
- Bakwin, Ruth Morris.** See BODANSKY, BAKWIN, and BAKWIN, 94, 551
- Baldauf, Leon K.** See BAUMANN and METZGER, 98, 405
- Ball, Charles D., Jr.** See HUSTON, LIGHTBODY, and BALL, 79, 507
- Ball, Eric G.** See WILSON and BALL, 78, 1
 79, 221
 —. The composition of pancreatic juice and blood serum as influenced by the injection of acid and base, 86, 433
 —. The composition of pancreatic juice and blood serum as influenced by the injection of inorganic salts, 86, 449
 —. See JOHNSTON and BALL, 86, 643
 —. Hemolytic action of silver occurring as an impurity in chemically pure sodium chloride, 97, xciv
- Ballard, Herman E.** See GREENBERG and BALLARD, 78, lxxv
- Balls, A. K., and Wolff, William A.** The determination of morphine, 80, 379
 — and —. The optical activity of pseudomorphine, 80, 403
- Bancroft, George, and Fry, Edith G.** Adsorption and hydrolysis of glycogen, 100, 255
- Barbour, A. D.** Enzymatic hydrolysis of glycogen, 85, 29
- Barbour, Henry G., Gregg, D. E., and Hunter, L. G.** Changes in metabolic rate, fuel, and water balance on withdrawal of dogs from morphine, 87, xlv
- Barger, George, and Coyne, F. P.** The new sulfur-containing amino acid described by J. H. Mueller, 78, iii
- Barnes, Broda O.** See BEARD and BARNES, 94, 49
 —. See MYERS, BEARD, and BARNES, 94, 117
- Barnés, Dorotea.** See FOSTER, ANSLOW, and BARNÉS, 89, 665
- Barnett, Harold M.** Studies on leucine and dileucine hydrochloride and a new method for the isolation of leucine, 100, 543
- Barr, David P.** See RONZONI, GLASER, and BARR, 80, 309
 —, Ronzoni, Ethel, and Glaser, Jerome. Studies of the inhibitory action of an extract of pancreas upon glycolysis. II. Effect of the inhibitor upon the glycolysis of malignant tumors, 80, 331

- Barron, E. S. Guzman. See PERLZWEIG and BARRON, 79, 19
- and Harrop, George A., Jr. Studies on blood cell metabolism. II. The effect of methylene blue and other dyes upon the glycolysis and lactic acid formation of mammalian and avian erythrocytes, 79, 65
- . See MICHAELIS and BARRON, 81, 29
- . Studies on blood cell metabolism. III. The effect of methylene blue on the oxygen consumption of the eggs of the sea urchin and starfish. The mechanism of the action of methylene blue on living cells, 81, 445
- , Flexner, Louis B., and Michaelis, L. Oxidation-reduction systems of biological significance. III. The mechanism of the cysteine potential at the mercury electrode, 81, 743
- . See MICHAELIS and BARRON, 83, 191
- . Studies on blood cell metabolism. IV. The effect of methylene blue upon the oxygen consumption, glycolysis, and lactic acid formation in leucocytes, 84, 83
- and Harrop, George A., Jr. Studies on blood cell metabolism. V. The metabolism of leucocytes, 84, 89
- , —, Perlzweig, William A., and Pierce, H. F. The acid-base equilibrium in dogs under reduced oxygen tension, 87, xxv
- . The rate of autoxidation of oxidation-reduction systems and its relation to their free energy, 92, xlv
- and Hamburger, Morton, Jr. The effect of cyanide upon the catalytic action of dyes on cellular oxygen consumption, 96, 299
- . The rate of autoxidation of oxidation-reduction systems and its relation to their free energy, 97, 287
- and Hastings, A. Baird. The mechanism of lactic acid oxidation by the α -hydroxyoxidase of gonococci, 97, lxxiii
- and Miller, C. Phillip. Studies on biological oxidations. I. Oxidations produced by gonococci, 97, 691
- and Hastings, A. Baird. Studies on biological oxidations. II. The oxidation of lactic acid by α -hydroxyoxidase, and its mechanism, 100, 155
- and —. The oxidation-reduction potentials of lactate-pyruvate in the presence of the activating coenzyme of α -hydroxyoxidase, 100, xi
- Barwasser, Norbert. See KAHLENBERG and BARWASSER, 79, 405
- Basharov, S. See STEENBOCK, HART, RIISING, HOPPERT, BASHAROV, and HUMPHREY, 87, 103
- Bass, Lawrence W. See LEVENE and BASS, 78, 145
- . See LEVENE, BASS, and STEIGER, 81, 221

- Bass, Lawrence W.**—*continued.*
 —. See LEVENE, BASS, ROTHEN, and STEIGER, 81, 687
 —. See LEVENE, BASS, and STEIGER, 81, 697
 —. See LEVENE, STEIGER, and BASS, 82, 155
 —. See LEVENE, BASS, and STEIGER, 82, 167
 —. See LEVENE and BASS, 82, 171
- Batchelder, E. L.** See SHERMAN and BATCHELDER, 91, 505
- Bates, Robert W.** Studies on the trypsinogen-enterokinase system, 92, lxxvii
- Baudisch, Oskar.** See DYER and BAUDISCH, 95, 483
 — and Dyer, Elizabeth. The o-quinone test for cysteine, 99, 485
- Bauer, Walter.** See MERRITT and BAUER, 90, 215, 233
- Bauguess, Lyle C.** See BERG and BAUGUESS, 98, 171
 — and Berg, Clarence P. The availability of indole derivatives for supplementing diets deficient in tryptophane, 100, xii
- Bauman, L.** See PICKENS, SPANNER, and BAUMAN, 95, 505
 —. See SPANNER and BAUMAN, 98, 181
- Baumann, Carl A., Steenbock, H., and Ingraham, Mary A.** Bacteria and the synthesis of carotene and vitamin A, 100, xiii
- Baumann, Emil J.** See MARINE, BAUMANN, and WEBSTER, 89, 213
- . Inorganic salt metabolism during involution of simple goiter, 92, lxxx
- , Kurland, Sarah, and Metzger, Nannette. Mineral metabolism during involution of simple goiter, 94, 383
 — and Metzger, Nannette. The determination of iodine in blood, tissues, and food, 97, xc
- and —. The determination of iodine in blood, foods, and urine, 98, 405
- , Sprinson, David, and Metzger, Nannette. The thyroid and cyanide metabolism, 100, xiii
- Baxter, Blanch.** See GUTMAN, BENEDICT, BAXTER, and PALMER, 97, 303
- Bayliss, L. E., and Walker, Arthur M.** The electrical conductivity of glomerular urine from the frog and from *Necturus*, 87, 523
- Bazin, Eleanor V.** See RABINOWITCH and BAZIN, 80, 723
 —. See RABINOWITCH, 97, 163
- , 100, 479
- Beadles, Jessie R., Braman, Winfred W., and Mitchell, H. H.** The cystine deficiency of the proteins of garden peas and of potatoes, 88, 615
- , —, and —. The relation between cystine deficiency in the diet and growth of hair in the white rat, 88, 623
- Beard, Howard H.** See CHANUTIN and BEARD, 78, 167

- See RAPPORT and BEARD, 80, 413
- and Myers, Victor C. Further observations on the effect of inorganic elements in nutritional anemia, 87, xxxix
- and —. The action of iron and iron supplemented with other elements upon the reticulocyte and red blood cell response in the nutritional anemia of the rat, 92, lxii
- The relationship between increase in body weight and hemoglobin after iron therapy in nutritional anemia of the rat, 92, lxxxix
- and Barnes, Broda O. The influence of feeding proteins, amino acids, and related substances upon creatine-creatinine metabolism, 94, 49
- and Myers, Victor C. Studies in the nutritional anemia of the rat. I. Influence of iron upon blood regeneration, 94, 71
- See MYERS and BEARD, 94, 89
- Rafferty, Catherine, and Myers, Victor C. Studies in the nutritional anemia of the rat. III. The prevention of anemia by means of inorganic elements, 94, 111
- See MYERS, BEARD, and BARNES, 94, 117
- , Baker, Reginald W., and Myers, Victor C. Studies in the nutritional anemia of the rat. V. The action of iron and iron supplemented with other elements upon the daily reticulocyte, erythrocyte, and hemoglobin response, 94, 123
- Studies in the nutritional anemia of the rat. VI. The effect of inorganic elements upon the rate of blood regeneration and growth, 94, 135
- , Burk, Robert E., Thompson, Howard E., and Goldblatt, Harry. The antirachitic activation of ergosterol in the absence of oxygen, 96, 307
- and Tripoli, Carlo J. The effect of feeding amino acids in cases of muscular dystrophy, 100, xiv
- Beber, A. J. See BURR and BEBER, 97, xxxvi
- Beber, J. H. See BURR and BEBER, 100, xxiv
- Beber, M. See MORGULIS and BEBER, 77, 115
- Bechdel, S. I., Honeywell, Hannah E., Dutcher, R. Adams, and Knutsen, M. H. Synthesis of vitamin B in the rumen of the cow, 80, 231
- Beck, H. H. See SUPPLEE, HANFORD, DORCAS, and BECK, 95, 687
- See SUPPLEE, BECK, and DORCAS, 98, 769
- Becker, J. Ernestine. See MCCOLLUM, RASK, and BECKER, 77, 753
85, 779
- de Beer, Edwin J., and Wilson, D. Wright. The inorganic composition of the parotid saliva of the dog and its relation to the composition of the serum, 95, 671

- Behr, Letha Davies, Palmer, J. W., and Clarke, H. T.** The estimation of bromides in biological material, 88, 131
- Behre, Jeanette Allen, and Benedict, Stanley R.** The occurrence and determination of thioneine (ergothioneine) in human blood, 82, 11
- See **BENEDICT** and **BEHRE**, 92, 161
- Studies in ketone body excretion. I. Daily variations in the ketone bodies of normal urine and the ketonuria of short fasts, with a note on diabetic ketonuria during insulin treatment, 92, 679
- Bell, Marion.** See **KLEINER** and **BELL**, 78, xxv
- Studies on the composition of human milk, 80, 239
- and **Kleiner, Israel S.** The rate of dialysis of normal and diabetic blood sugar of human subjects, 87, xxxv
- BeMiller, LaMar N.** See **BILLS**, **McDONALD**, **BeMiller**, **STEEL**, and **NUSSMEIER**, 93, 775
- Bender, R. C.** See **SUPPLEE**, **BENDER**, and **DORCAS**, 97, 63
- Benedict, Ethel M.** See **GUTMAN**, **BENEDICT**, **BAXTER**, and **PALMER**, 97, 303
- Benedict, Stanley R.** The determination of blood sugar. II, 76, 457
- A note on the purification of picric acid for creatinine determination, 82, 1
- and **Newton, Eleanor B.** The use of molybdic acid as a precipitant for blood proteins, 82, 5
- See **BEHRE** and **BENEDICT**, 82, 11
- and **Nash, Thomas P., Jr.** On the question of the origin of urinary ammonia, 82, 673
- Determination of sugar in blood, 83, 165
- and **Newton, Eleanor B.** The use of tungstomolybdic acid as a precipitant for blood proteins, 83, 357
- and —. Studies on the non-sugar reducing substances of the blood and urine. I. Glutathione and thioneine in blood, 83, 361
- The analysis of whole blood. I. The precipitation of the proteins, 92, 135
- II. The determination of sugar and of saccharoids (non-fermentable copper-reducing substances), 92, 141
- and **Behre, Jeanette Allen.** The analysis of whole blood. III. Determination and distribution of uric acid, 92, 161
- and **Gottschall, Gertrude.** The analysis of whole blood. IV. The determination of glutathione, 99, 729
- Bengis, R. O., and Anderson, R. J.** The chemistry of the coffee-bean. I. Concerning the unsaponifiable matter of the

- coffee-bean oil. Preparation and properties of kahweol, 97, 99
- Benjamin, Helen Rivkin. See HESS, WEINSTOCK, BENJAMIN, and GROSS, 90, 737
- See HESS, BENJAMIN, and GROSS, 94, 1
- and Hess, Alfred F. The forms of the calcium and inorganic phosphorus in human and animal sera. I. Normal, rachitic, hypercalcemic, and other conditions, 100, 27
- The forms of the calcium and inorganic phosphorus in human and animal sera. II. The nature and significance of the filtrable, adsorbable calcium-phosphorus complex, 100, 57
- Bennett, Helen B. See SHOHL and BENNETT, 76, 633
- See SHOHL, BENNETT, and WEED, 78, 181
- See SHOHL and BENNETT, 78, 643
- See SHOHL, BENNETT, and WEED, 79, 257
- Benson, C. C. Hydrogen ion concentration of fish muscle, 78, 583
- Bercovici, I. See MORGULIS, 92, 377
- Berg, Clarence P. See COX, KING, and BERG, 81, 755
- and Rose, William C. Tryptophane and growth. I. Growth upon a tryptophane-deficient basal diet supplemented at varying intervals by the separate feeding of tryptophane, 82, 479
- , —, and Marvel, Carl S. Tryptophane and growth. II. Growth upon a tryptophane-deficient basal diet supplemented with tryptophane derivatives, 85, 207
- , —, and —. III. 3-Indolepropionic acid and 3-indolepyruvic acid as supplementing agents in diets deficient in tryptophane, 85, 219
- The production of kynurenic acid from tryptophane derivatives, 87, x
- Tryptophane metabolism. I. The production of kynurenic acid from tryptophane derivatives, 91, 513
- and Potgieter, Martha. Tryptophane metabolism. II. The growth-promoting ability of *dl*-tryptophane, 94, 661
- The influence of optical activity on the production of kynurenic acid, 97, lxviii
- and Bauguess, Lyle C. Tryptophane metabolism. III. The rate of absorption of *l*- and *dl*-tryptophane and tryptophane derivatives from the gastrointestinal tract of the rat, 98, 171
- The resolution of *dl*-tryptophane, 100, 79
- See BAUGUESS and BERG, 100, xii
- Bergeim, Olaf. The quantitative estimation of digestive function, 78, xliii
- Berggren, Ruth E. L. See TALBOTT, FÖLLING, HENDERSON, DILL, EDWARDS, and BERGGREN, 78, 445

- Berggren, Ruth E. L.**—*continued*.
 —. The phosphorus content of casein. Preliminary paper, 95, 451
 —. The application of the Fiske-Subbarow colorimetric method to the determination of phosphorus in casein, 95, 461
- Berglund, Hilding, Medes, Grace, and Lohmann, Anne.** A reducing urinary tyrosine compound in cases of a muscular disease (myasthenia gravis), 78, v
- Bergman, H. C.** See **MACKEY** and **BERGMAN**, 96, 373
- Bergmann, Max, Andrews, James C., and Andrews, Kathleen Crandall.** The decomposition of cystine phenylhydantoin, 92, xxxvii
- Berliner, Frieda S.** See **HESS**, **BERLINER**, and **WEINSTOCK**, 94, 9
 —. See **HESS**, **GROSS**, **WEINSTOCK**, and **BERLINER**, 98, 625
- Bernardoni, Bernard.** See **HENDRIX** and **BERNARDONI**, 97, xcv
- Bernhard, Adolph, and Dreker, I. J.** The effect of ultra-violet irradiation upon the free sterols of lanolin, 93, 1
- Bernheim, Frederick, and Bernheim, Mary L. C.** Pyrrole as a catalyst for certain biological oxidations, 92, 461
 — and —. The oxidation of proline and oxyproline by liver, 96, 325
 — and —. The action of colloidal sulfur on liver oxidations, 96, 331
- Bernheim, Mary L. C.** See **BERNHEIM** and **BERNHEIM**, 92, 461
 —. Tyramine oxidase. II. The course of the oxidation, 93, 299
 —. See **BERNHEIM** and **BERNHEIM**, 96, 325, 331
- Bethke, R. M.** See **KRAUSS** and **BETHKE**, 92, x
- Kick, C. H., and Wilder, Willard.** The effect of the calcium-phosphorus relationship on growth, calcification, and blood composition of the rat, 98, 389
- Biasotti, A.** See **MCCLELLAN**, **BIASOTTI**, and **HANNON**, 78, 719
- Bierman, W.** See **FISHBERG** and **BIERMAN**, 97, 433
- Bigelow, Newell M.** See **JACOBS** and **BIGELOW**, 96, 355, 647
 99, 521
- Bill, Arthur H.** See **MUNTWYLER**, **LIMBACH**, **BILL**, and **MYERS**, 90, 607
 —. See **MULL** and **BILL**, 97, lxxv
 —. See **MYERS**, **MUNTWYLER**, and **BILL**, 98, 253, 267
- Bills, Charles E., Honeywell, Edna M., and MacNair, Walter A.** Antiricketic substances. VII. Biochemical and spectroscopic studies on purified cholesterol, 76, 251
 — and —. Antiricketic substances. VIII. Studies on

- highly purified ergosterol and its esters, 80, 15
- , —, and Cox, Warren M., Jr. Antiricketic substances. IX. Quantitative biophysical studies on the activation of ergosterol, 80, 557
- and Cox, Warren, M., Jr. Studies on the isomerization of ergosterol, 84, 455
- , —, and Steel, Godfrey E. The heat of combustion of ergosterol, isoergosterol, and cholesterol, 84, 655
- and Wirick, Alice M. Long time feeding experiments with activated ergosterol. I, 86, 117
- , Massengale, O. N., and Prickett, Paul S. Factors determining the ergosterol content of yeast. I. Species, 87, 259
- , McDonald, Francis G., and Cox, Warren M., Jr. The isoergosterols and vitamin D, 87, liii
- and —. Further studies on the isomerization of ergosterol, 88, 337
- . See McDONALD and BILLS, 88, 601
- . See Cox and BILLS, 88, 709
- , Honeywell, Edna M., Wirick, Alice M., and Nussmeier, Mildred. A critique of the line test for vitamin D, 90, 619
- , —, and Cox, Warren M., Jr. Influence of solvents on the activation of ergosterol, 92, 601
- , McDonald, Francis G., BeMiller, LaMar N., Steel, Godfrey E., and Nussmeier, Mildred. Heat of combustion of activated ergosterol, 93, 775
- . See MASSENGALE, BILLS, and PRICKETT, 94, 213
- and McDonald, Francis G. Crystalline vitamin D, 96, 189
- . See HONEYWELL and BILLS, 97, xxxix
- . 99, 71
- . A spectrograph for the rapid quantitative estimation of vitamin A, and determinations of the vitamin A content of certain fish oils, 100, xv
- Biloon, Sol. See BRAND, HARRIS, and BILOON, 86, 315
- Bing, Franklin C. See SHOHL and BING, 79, 269
- and Baker, Reginald W. The pseudoperoxidase method of Wu for the determination of minute amounts of hemoglobin, 92, lxxiii
- and —. The determination of hemoglobin in minute amounts of blood by Wu's method, 92, 589
- . Purification of benzidine, and an improved reagent, for estimating hemoglobin in blood, 95, 387
- , Adams, W. L., and Bowman, R. O. The protein requirements of the albino mouse, 97, cvii
- , Saurwein, Esther M., and Myers, Victor C. Further

- studies on the utilization of parenterally administered iron, 100, xv
- Binkley, Neva L. See LEWIS and BINKLEY, 87, xxiii
- Binns, Dorothy. See MUNT-WYLER and BINNS, 97, lxxviii
- Bird, Orson D. See COGHILL and BIRD, 81, 115
- Bischoff, Fritz, Blatherwick, N. R., and Sahyun, Melville. Concerning the similarity of gluc-horment and synthalin, 77, 467
- and Maxwell, L. C. The precipitation of blood calcium by lead, 79, 5
- Preparation of some substituted guanidines, 80, 345
- and Sahyun, Melville. Denaturation of insulin protein by concentrated sulfuric acid, 81, 167
- , —, and Long, M. Louisa. Guanidine structure and hypoglycemia, 81, 325
- and Long, M. Louisa. The effect of insulin upon the blood amino acid nitrogen of the rabbit, 84, 629
- , Ullmann, H. J., Hill, Elsie, and Long, M. Louisa. Studies in hyperthermia induced by the high frequency electric current, 85, 675
- and Long, M. Louisa. The depletion of muscle sugar by adrenalin, 87, 47
- , —, and Hill, Elsie. Plasma pH in cancer, 87, liv
- , —, and —. Studies in hyperthermia. II. The acid-base equilibrium in hyperthermia induced by short radio waves, 90, 321
- , Maxwell, L. C., and Hill, Elsie. Studies in hyperthermia. III. The phosphorus equilibrium, 90, 331
- See KOEHLER, BISCHOFF, and HILL, 92, li
- , Maxwell, L. C., and Ullmann, H. J. Hormones in cancer. III. Effect of glandular extirpation, 92, lxxx
- and Long, M. Louisa. The effect of adrenalin upon the free muscle sugar and total carbohydrate, 95, 743
- , Maxwell, L. C., and Ullmann, H. J. Hormones in cancer. VII. Effect of the anterior lobe growth-promoting principle on the growth behavior of neoplasms, 97, cji
- See LONG and BISCHOFF, 98, 85
- and Elliott, A. H. Some chemical and physiological properties of callierein, 100, xvii
- Black, Archie. See STEENBOCK, BLACK, and THOMAS, 85, 585
- Blair, H. A. See RAY, BLAIR, and THOMAS, 98, 63
- Blair, John E. See BODANSKY, BLAIR, and JAFFE, 88, 629
- Blanchard, M. H. See COHN, McMEEKIN, EDSALL, and BLANCHARD, 100, xxviii
- Blanco, J. G. See RAYMOND and BLANCO, 79, 649

- . See LEVENE and BLANCO, 79, 657
- . Sugar metabolism. Lactose, galactose, and xylose, 79, 667
- . See RAYMOND and BLANCO, 80, 631
- Blankenhorn, M. A. Blood urobilin. The urobilin content of normal human blood. Description of a method, 80, 477
- Blatherwick, N. R. See SAHYUN and BLATHERWICK, 77, 459
- . See BISCHOFF, BLATHERWICK, and SAHYUN, 77, 467
- . See SAHYUN and BLATHERWICK, 79, 443
- and Sahyun, Melville. The influence of epinephrine and insulin upon the distribution of glycogen, 81, 123
- , Medlar, E. M., Connolly, J. M., and Bradshaw, Phoebe J. Nephritis in unilaterally nephrectomized white rats living upon high protein diets, 92, lxxxiv
- , — , Bradshaw, Phoebe J., Post, Anna L., and Sawyer, Susan D. The occurrence of fatty livers in rats fed diets containing liver, 97, xxxiii
- , — , — , and Sawyer, Susan D. Further observations on the dietary production of fatty livers in rats, 100, xviii
- Bledsoe, Mary Sue. See ALDRICH and BLEDSOE, 77, 519
- . See GREENE and POWER, 91, 183
- Blish, M. Eleanor. See KERR and BLISH, 97, 11
- 98, 193
- Blish, M. J., and Sandstedt, R. M. The nature and identity of wheat glutenin, 85, 195
- Bliss, Sidney. Further studies on ammonia formation, 78, viii
- . The amide nitrogen of blood. II. A quantitative method, 81, 129
- . III. Muscular exercise: the rôle of ammonia in the neutralization of lactic acid, 81, 137
- . IV. A method of expressing results based upon the protein content of blood, 81, 405
- . The extrarenal neutralization of acid by ammonia, 87, xxx
- Block, Richard J. See VICKERY and BLOCK, 86, 107
- and Jackson, Richard W. Derivatives of thiopyruvic acid in connection with a diet deficient in cystine, 92, xci
- . See VICKERY and BLOCK, 93, 105
- and Vickery, Hubert Bradford. The basic amino acids of proteins. A chemical relationship between various keratins, 93, 113
- . The basic amino acids from neurokeratin: is neurokeratin a true keratin? 94, 647
- , Cowgill, George R., and Klotz, Benjamin Howard. The antineuritic vitamin. I. The method of assay, concentration

Block, Richard J.—*continued.*

- of the vitamin with silver under various conditions, and its solubility in certain organic solvents, 94, 765
- and —. The antineuritic vitamin. II. Removal of impurities by oxidizing agents, 96, 127
- and Jackson, Richard W. The metabolism of cystine and methionine, 97, cvi
- and Cowgill, George R. The antineuritic vitamin. III. Removal of impurities by fractional precipitation, 97, 421
- See JACKSON and BLOCK, 98, 465
- and Cowgill, George R. The antineuritic vitamin. IV. The preparation of a highly potent concentrate, 98, 637
- A new type of continuous extractor, 100, 537
- Bloom, Margaret A.** The effect of crude fiber on calcium and phosphorus retention, 89, 221
- Bloomfield, Emily M.** See ROSE and MCCOLLUM, 78, 535, 549
- Bloor, W. R.** The determination of small amounts of lipid in blood plasma, 77, 53
- Quantitative relations of the lipids of normal tissues, 78, iii
- Distribution of unsaturated fatty acids in tissues. III. Vital organs of beef, 80, 443
- The oxidative determination of phospholipid (lecithin and cephalin) in blood and tissues, 82, 273
- , Okey, Ruth, and Corner, George W. The relation of the lipids to physiological activity. I. The changes in the lipid content of the corpus luteum of the sow, 86, 291
- See OKEY, BLOOR, and CORNER, 86, 307
- and Snider, Ruth H. The neutral fat of beef liver and other tissues, 87, 399
- Diet and the blood lipids, 95, 633
- See SNIDER and BLOOR, 97, xxxiii
99, 555
- Blume, Florence.** See MORGAN, STRAUCH, and BLUME, 85, 385
- Blunt, Katharine.** See COONS and BLUNT, 86, 1
- Bock, A. V.** See DILL, BOCK, VAN CAULAERT, FÖLLING, HURXTHAL, and HENDERSON, 78, 191
- See DILL, BOCK, LAWRENCE, TALBOTT, and HENDERSON, 81, 551
- See HURXTHAL, BOCK, TALBOTT, and DILL, 81, 681
- See HENDERSON, BOCK, DILL, and EDWARDS, 87, 181
- Bock, Joseph C.** The interferometric determination of alcohol in blood, 87, xxviii
93, 645

- Bodansky, Aaron, Blair, John E., and Jaffe, Henry L.** Experimental hyperparathyroidism in guinea pigs leading to osteitis fibrosa, 88, 629
- and **Jaffe, Henry L.** Plasma phosphatase in experimental hyperparathyroidism, 92, xvi
- and —. Hypocalcemia following experimental hyperparathyroidism and its possible significance, 93, 543
- , —, and **Chandler, Joseph P.** Experimental factors influencing blood phosphatase values, 97, lxvi
- . Phosphatase studies. I. Determination of inorganic phosphate. Beer's law and interfering substances in the Kuttner-Lichtenstein method, 99, 197
- Bodansky, Meyer.** The action of acids in producing hemolysis, 78, xvi
- . The hemolytic action of inorganic acids, 79, 229
- . Lipoid solubility, permeability and hemolytic action of the saturated fatty acids, 79, 241
- . The effect of hydrogen ion concentration on saponin hemolysis, 82, 567
- , **Schwab, Edward H., and Brindley, Paul.** Creatine metabolism in a case of generalized myositis fibrosa, 85, 307
- and —. Creatine metabolism in a case of progressive myositis ossificans: a comparison with generalized myositis fibrosa, 87, x
- . Creatine in human muscle, 91, 147
- . See **DAVIS** and **BODANSKY**, 97, lv
- Bodansky, Oscar, Bakwin, Ruth Morris, and Bakwin, Harry.** The distribution of phosphatase in the tissues of teleosts and elasmobranchs, 94, 551
- Bodo, R. C., and Neuwirth, Isaac.** The relation of insulin to liver glycogen, 92, xxv
- Boersma, John.** See **KERN, MONTGOMERY, and STILL**, 93, 365
- Bogert, L. Jean, and Hastings, A. Baird.** The calcium salts of bone, 94, 473
- Boggs, H. M.** See **SURE**, 76, 659, 673
- Bohstedt, G.** See **KOZELKA, HART, and BOHSTEDT**, 100, 715
- Boldyreff, Ephraim B.** Glycolytic enzyme of the pancreatic juice. II. Experiments under sterile conditions *in vitro*, 78, lix
- Bolliger, Adolph.** The influence of the purine diuretics on inorganic phosphates of blood and urine, 76, 797
- . On the influence of frequent intravenous administration of phosphate solutions on normal and nephritic dogs, 78, lxxiv
- Bollman, Jesse L.** See **WILHELMJ and BOLLMAN**, 77, 127

Bollman, Jesse L.—*continued.*

— The influence of protein metabolism on the conversion of creatine to creatinine,

85, 169

— See GREENE, BOLLMAN, KEITH, and WAKEFIELD,

91, 203

—, Mann, Frank C., and Wilhelmj, Charles M. The origin of glucose liberated by epinephrine in depancreatized animals,

93, 83

— See ADAMS, BOLLMAN, and BOOTHBY,

97, xci

Bollman, V. L. See MORGULIS,

77, 627

Bomskov, Christian. The determination of magnesium in blood with 8-hydroxyquinoline. A note on the paper by Greenberg and Mackey,

99, 17

Bonoff, R. See BODANSKY,

99, 197

Booher, Lela E. See SHERMAN and BOOHER,

93, 93

— and Hansmann, G. H. Studies on the chemical composition of the human skeleton. I. Calcification of the tibia of the normal new born infant,

94, 195

Boor, Alden Kinney, and Bachem, Albert. A spectrographic study of carbon monoxide hemoglobin,

85, 743

— and Miller, C. Phillip. A formaldehyde-stable, proteolytic bacterial enzyme,

100, xix

Boothby, Walter M. See DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY,

76, 391, 407

—, Wilhelmj, Charles M., and Wilson, H. Ellis C. The question of the oxidation of glucose in phlorhizin glycosuria,

83, 657

— See ADAMS, BOLLMAN, and BOOTHBY,

97, xci

Bordley, James, 3rd, and Richards, A. N. Quantitative determinations of uric acid in glomerular urine and blood plasma from frogs and snakes,

97, lxxii

Borsook, Henry, and Schott, Hermann F. The rôle of the enzyme in the succinate-enzyme-fumarate equilibrium,

92, 535

— and —. The free energy, heat, and entropy of formation of l-malic acid,

92, 559

— and Thimann, Kenneth V. The cupric complexes of glycine and of alanine,

98, 671

— and Huffman, Hugh M. The free energies of formation of aqueous d-alanine, l-aspartic acid, and d-glutamic acid,

99, 663

Bott, P. A. See PFIFFNER, VARS, BOTT, and SWINGLE,

97, xlv

100, lxxviii

Bowman, R. O. See BING, ADAMS, and BOWMAN,

97, cvii

Boyd, Eldon M. Low phospholipid values in dog plasma,

91, 1

Boyd, Julian D. See STEARNS and BOYD,

87, xv, lvi

- Boyd, M. J. Hematoporphyrin, an artificial proteolytic enzyme, 100, xix
- Boyd, Oscar F., Crum, Carlos L., and Lyman, J. F. The absorption of calcium soaps and the relation of dietary fat to calcium utilization in the white rat, 95, 29
- Boyd, William C. See HOOKER and BOYD, 100, 187
- Boyden, Ruth E. See MORGAN, 90, 771
- See ERIKSON, BOYDEN, MARTIN, and INSKO, 100, xl
- Bradley, H. C. See TORBET and BRADLEY, 92, lxxvii
- Inhibition of pepsin by mucin, 100, xx
- Bradshaw, Phoebe J. See BLATHERWICK, MEDLAR, CONNOLLY, and BRADSHAW, 92, lxxxiv
- See BLATHERWICK, MEDLAR, BRADSHAW, POST, and SAWYER, 97, xxxiii
- 100, xviii
- Braman, Winfred W. See BEADLES, BRAMAN, and MITCHELL, 88, 615, 623
- Brand, Erwin, Harris, Meyer M., and Biloan, Sol. Cystinuria. The excretion of a cystine complex which decomposes in the urine with the liberation of free cystine, 86, 315
- , —, Sandberg, Marta, and Lasker, Margaret. Further studies on the origin of creatine, 87, ix
- and —. On the origin of creatine. III, 92, lix
- and —. Phosphorus metabolism in muscular disease, 97, lxii
- and —. Further studies on the administration of glycine in muscular and neuromuscular diseases, 100, xx
- Brandt, A. E. See IRWIN, BRANDT, and NELSON, 88, 449, 461
- Branion, H. D., Guyatt, B. L., and Kay, H. D. Beryllium rickets, 92, xi
- Braun, Charles E. *p*-Aminophenylguanidine hydroiodide, 89, 97
- See PARKS and BRAUN, 91, 629
- Braunstein, A. E. On the effect of arsenate on blood glycolysis. A correction, 98, 379
- Breckenridge, Gerald F. See HOGAN, SHREWSBURY, and BRECKENRIDGE, 87, xlii
- Breedlove, C. H. See HELLER, BREEDLOVE, and LIKELY, 79, 275
- Breh, F., and Gaebler, Oliver Henry. The determination of potassium in blood serum, 87, 81
- Breitwieser, Anne. See SMITH, 88, 97
- Brekke, Viola. See outhouse, MACY, and BREKKE, 78, 129
- Brewe, C. See GRAY, 87, 591

- Bridge, Edward M., and Bridges, E. M.** The relation of glyco-
gen to water storage in the liver,
93, 181
- and —. The relation of glyco-
gen to water storage in the
liver. A reply to the commu-
nications of Puckett and Wiley
and of MacKay and Bergman,
96, 381
- Bridges, E. M.** See **BRIDGE** and
BRIDGES, 93, 181
96, 381
- Brindley, Paul.** See **BODANSKY**,
SCHWAB, and **BRINDLEY**,
85, 307
- Brode, Wallace R., and Magill, Mary A.** A critical study of
the antimony trichloride color
test for vitamin A, 92, 87
- Brooke, Richard O., and Smith, Arthur H.** The mechanism of
base conservation of rats re-
ceiving a diet low in inorganic
constituents, 97, cv
- and —. Inorganic salts in
nutrition. VI. The mineral
metabolism of rats receiving a
diet low in inorganic constitu-
ents, 100, 105
- and —. Application of the
Lorenz-Pregl technique for the
determination of small amounts
of phosphorus in biological ma-
terial, 100, xxiii
- Brophy, T. W.** See **DUNN** and
BROPHY, 99, 221
- Brown, Elizabeth F.** See **GOET-
TSCH** and **BROWN**, 97, 549
- Brown, H. I.** See **MORGULIS**,
77, 627
- Brown, Helen Bennett.** See
SHOHL and **BROWN**, 84, 501
- and **Shohl, Alfred T.** Rickets
in rats. XI. The alteration of
calcium and phosphorus metab-
olism of normal and ricketic
rats produced by irradiated
ergosterol, 86, 245
- and —. The determination
of sodium plus potassium as
benzidine sulfate, 91, 745
- See **SHOHL**, **BROWN**, **ROSE**,
SMITH, and **COZAD**,
92, x, 711
- See **SHOHL**, **BROWN**, **ROSE**,
and **SAURWEIN**, 97, x
- , **Shohl, Alfred T.**, **Chapman, Edna E.**, **Rose, Catharine S.**,
and **Saurwein, Esther M.** Ric-
kets in rats. XIII. The effect
of various levels and ratios
of calcium to phosphorus in the
diet upon the production of
rickets, 98, 207
- See **SHOHL**, **BROWN**, **CHAP-
MAN**, **ROSE**, and **SAURWEIN**,
98, 215
- Brown, J. B.** The highly unsat-
urated fatty acid of liver lipids.
The preparation of arachidonic
acid, 80, 455
- Arachidonic acid in the
lipids of thyroid, suprarenal,
and spleen, 83, 777
- The occurrence of a new
highly unsaturated fatty acid
in the lipids of the brain,
83, 783
- and **Ault, W. C.** A compari-
son of the highly unsaturated
acids of beef, hog, and sheep
brains, 89, 167

- The nature of the highly unsaturated fatty acids stored in the lard from pigs fed on menhaden oil, 90, 133
- The content and nature of the highly unsaturated fatty acids of the human brain, 92, lxxxviii
- Further observations on the nature of the highly unsaturated fatty acids of beef brains, 97, 183
- Brown, K. E.** See DUNN, SMART, REDEMANN, and BROWN, 94, 599
- Browne, J. S. L.** See COLLIP, BROWNE, and THOMSON, 97, xvii
- Bruen, Curtis.** Nomogram deriving basal metabolism from height-weight coordinates, 85, 607
- Bruger, Maurice, and Somach, Irving.** The diurnal variations of the cholesterol content of the blood, 97, 23
- See MOSENTHAL and BRUGER, 97, lxxxiii
- Buchwald, K. W.** See CORI, CORI, and BUCHWALD, 86, 375
- See CORI and BUCHWALD, 87, xxxviii
- and Cori, Carl F. The action of epinephrine and insulin in frogs under anaerobic conditions, 92, 355
- See CORI and BUCHWALD, 92, 367
- Buell, Mary V., and Perkins, Marie E.** Adenine nucleotide content of blood with a micro-analytical method for its determination, 76, 95
- On the origin of inosinic acid, 85, 435
- and Strauss, Margaret B. Phosphorus and carbohydrate metabolism in the autolyzing muscle of normal, hyperthyroid, and adrenalectomized animals, 97, lxxv
- , —, and Andrus, E. Cowles. Metabolic changes involving phosphorus and carbohydrate in the autolyzing gastrocnemius and cardiac muscles of normal, of thyroxinized, and of adrenalectomized animals, 98, 645
- Bugher, John C.** A quinhydrone-collodion electrode of special applicability in experimental pathology, 92, 513
- Bunker, John W. M., and Anderson, Edmund G. E.** Polarized light and starch hydrolysis, 77, 473
- Bunney, W. Edward, and Rose, William C.** Growth upon diets practically devoid of arginine, with some observations upon the relation of glutamic and aspartic acids to nutrition, 76, 521
- Burack, Ethel, and Cowgill, George R.** Studies in the physiology of vitamins. XIX. The acid-base balance of the blood during lack of undifferentiated vitamin B, 96, 673
- and —. XX. The glucose tolerance during lack of undifferentiated vitamin B, 96, 685

- Burget, G. E.** See **MOORE, LLOYD**, and **BURGET**, 97, 345
- Burk, Norval F., and Greenberg, David M.** The physical chemistry of the proteins in non-aqueous and mixed solvents. I. The state of aggregation of certain proteins in urea-water solutions, 87, 197
- The molecular weight of serum albumin estimated by osmotic pressure measurements, 92, xl
- Osmotic pressure, molecular weight, and stability of serum albumin, 98, 353
- Burk, Robert E.** See **BEARD**, **BURK**, **THOMPSON**, and **GOLD-BLATT**, 96, 307
- Burr, George O.** See **EVANS** and **BURR**, 76, 263, 273, 77, 231
- and **Burr, Mildred M.** A new deficiency disease produced by the rigid exclusion of fat from the diet, 82, 345
- and —. On the nature and rôle of the fatty acids essential in nutrition, 86, 587
- See **WESSON** and **BURR**, 91, 525
- , **Burr, Mildred M.**, and **Miller, Elmer S.** On the fatty acids essential in nutrition, 92, xxxvi
- , —, and —. On the fatty acids essential in nutrition. III, 97, 1
- and **Beber, A. J.** A study of the gas exchange of rats suffering from a deficiency of unsaturated fatty acids, 97, xxxvi
- and **Beber, J. H.** Relation of iodine level to fat deficiency and metabolism, 100, xxiv
- Burr, Mildred M.** See **BURR** and **BURR**, 82, 345, 86, 587
- See **BURR**, **BURR**, and **MILLER**, 92, xxxvi, 97, 1
- Burt, Marie Louise, and Anderson, R. J.** The chemistry of the lipoids of tubercle bacilli. XXIV. Analysis of the acetone-soluble fat of the bovine tubercle bacillus, 94, 451
- Burtis, M. P.** See **SHERMAN** and **BURTIS**, 78, 671
- Burton, Helen Brown.** The influence of cereals upon the retention of calcium and phosphorus in children and adults, 85, 405
- Butler, A. W.** See **DUNN**, **BUTLER**, and **DEAKERS**, 99, 217
- Butler, Allan M., and Tuthill, Elizabeth.** An application of the uranyl zinc acetate method for determination of sodium in biological material, 93, 171
- See **GAMBLE**, **McKINNAN**, and **BUTLER**, 97, lvii
- and **Montgomery, Hugh.** The solubility of the plasma proteins. I. Dependence on salt and plasma concentrations in concentrated solutions of potassium phosphate, 99, 173
- Butt, H. R.** See **CHANUTIN**, **BUTT**, and **ROYSTER**, 100, xxvi

- Butts, Joseph S. See DEUEL, GULICK, and BUTTS, 92, xxiii 98, 333
- and Deuel, Harry J., Jr. The sexual variation in carbohydrate metabolism. II. The metabolism of diacetic acid in fasting rats and guinea pigs, 100, 415
- Butz, Lewis W. The thermal decomposition of methionine in acid solution, 97, xxi
- and du Vigneaud, Vincent. The formation of a homologue of cystine by the decomposition of methionine with sulfuric acid, 99, 135
- Cadden, J. F. See STANDER, EASTMAN, HARRISON, and CADDEN, 85, 233
- Cady, Osman Horace, and Luck, James Murray. Studies in the chemistry of vitamin A, 86, 743
- Cajori, F. A., and Pemberton, Ralph. The chemical composition of synovial fluid in cases of joint effusion, 76, 471
- Caldwell, M. L. See SHERMAN, CALDWELL, and ADAMS, 88, 295
- and Doebbeling, S. E. Influence of certain ions upon the extraction of malt amylase from alumina gel by which it has been adsorbed, 98, 553
- Calhoun, J. A. See CULLEN, HARRISON, CALHOUN, WILKINS, and PILCHER, 92, iv
- Callison, William E. The alleged presence of "bound potassium" in muscle, 90, 665
- Calvery, Herbert O. Some chemical investigations of embryonic metabolism. I. The isolation of four pentose nucleotides from chicken embryos, 77, 489
- II. The isolation of a hexose nucleic acid from chicken embryos, 77, 497
- III. A study of the nitrogen distribution in the developing hen's egg by the modified Van Slyke procedure, 83, 231
- Basic amino acids. The estimation of the basic amino acids in small amounts of casein and edestin by the modified method of Vickery and Leavenworth and other methods, 83, 631
- Some chemical investigations of embryonic metabolism. IV. An investigation of the basic amino acids of the hen's egg during development, 83, 649
- The isolation of adenosine from human urine, 86, 263
- Some chemical investigations of embryonic metabolism. V. The tyrosine, tryptophane, cystine, cysteine, and uric acid content of the developing hen's egg, 87, 691
- Studies on crystallized egg albumin, 94, 613
- and White, Abraham. Vitellin of hen's egg, 94, 635

Calvery, Herbert O.—*continued*.

- Some chemical investigations of embryonic metabolism. VI. Studies of some of the amino acids of the yolk, white, embryo, and shell membranes during development of the hen's egg, 95, 297

- Analysis of egg-shell keratin, 97, xxvi

- Some analyses of egg-shell keratin, 100, 183

Campbell, H. L. See **SHERMAN** and **CAMPBELL**, 97, iii

Campbell, Percy A. See **HOLMES**, **PIGOTT**, and **CAMPBELL**, 92, 187

Campbell, R. W. See **DILL**, **EDWARDS**, **FLORKIN**, and **CAMPBELL**, 95, 143

Campbell, Walter R. On the estimation of urea in blood and urine, 97, xevi

Cape, Jane. The rate of change of alkali reserve after ingestion of salts of organic compounds, 100, xxv

Carey, Benjamin W., Jr. See **TRIMBLE** and **CAREY**, 90, 655

- See **TRIMBLE**, **CAREY**, and **MADDOCK**, 100, 125

Carpenter, Thorne M., Fox, Edward L., and Sereque, Arthur F. Acetone as a control substance for respiration and gas analysis apparatus, 82, 335

- , —, and —. The Carpenter form of the Haldane gas analysis apparatus. Changes made in the apparatus and details regarding its use, 83, 211

Carroll, Margaret P. See **DAILEY**, **FREMONT-SMITH**, and **CARROLL**, 93, 17

Carswell, Harry E., and Winter, James E. The effects of high and prolonged magnesium lactate intake upon the metabolism of magnesium and calcium in man, 93, 411

Cartland, George F., and Koch, Fred C. Studies on the organic precursors of hemoglobin, 78, xxii

- , Heyl, Frederick W., and Neupert, E. F. Biological and chemical changes in cow's ovaries during pregnancy, 85, 539

Cary, C. A. See **HARDING** and **CARY**, 78, xlix

- Application of the spectrophotometer to the determination of tryptophane in protein-free blood extracts, 78, lxxv

- A colorimetric method for the determination of free tryptophane in blood, 78, 377

- and Meigs, Edward B. The free tryptophane in cow blood and its utilization in milk secretion, 78, 399

- and Hufnagel, C. F. Effect of tryptophane on gain in weight when used to supplement cornmeal protein, 97, xxxii

Cassidy, Harold G. See **HOLMES**, **LAVA**, **DELFS**, and **CASSIDY**, 99, 417

Catherwood, Florence L. See **ROSE**, **ELLIS**, **WINDUS**, and **CATHERWOOD**, 92, lxvi

- . See WINDUS, CATHERWOOD,
and ROSE, 94, 173
- Catron, Lloyd F., and Lewis,
Howard B. The formation of
glycogen in the liver of the
young white rat after the oral
administration of glycerol,
84, 553
- van Caulaert, C. See DILL, BOCK,
VAN CAULAERT, FÖLLING,
HURXTHAL, and HENDERSON,
78, 191
- Cave, H. W. See TITUS, CAVE,
and HUGHES, 80, 565
- Cavett, J. W. A comparison of
blood proteins with those of
nephritic urine and edema
fluids, 87, xvi
- . A modification of the Van
Slyke nitrogen distribution
method, 95, 335
- and Seljeskog, S. R. The
preparation of thyroglobulin,
100, xxvi
- Cerecedo, Leopold R. See EM-
ERSON and CERECEDO,
87, 453
- . Studies on the physiology of
pyrimidines. III. The inter-
mediary metabolism of uracil,
88, 695
- . IV. Further experiments on
the intermediary metabolism of
uracil, 93, 269
- . See STEKOL and CERECEDO,
93, 275
- . Studies on the physiology
of pyrimidines. VI. The fate
of parabanic acid, alloxan, and
alloxantin in the organism of
the dog, 93, 283
- . See ALLEN and CERECEDO,
93, 293
- . See FREUDENBERG and CERECEDO,
94, 207
- and Stekol, Jakob A. Stud-
ies on the metabolism of grow-
ing dogs, 97, lx
- . See STEKOL and CERECEDO,
100, 653, xc
- Chaikoff, I. L., and Weber, J. J.
The formation of sugar from
fatty acids in the depancrea-
tized dog injected with epi-
nephrine, 76, 813
- and Robinson, A. Studies in
fetal fat. I. The influence of
high and low fat diets on the
quality of the fat formed in
the fetus of the rat,
100, 13
- Chakmakjian, H. H. See REIS
and CHAKMAKJIAN, 92, 59
98, 237
- Chambers, William H. See MIL-
HORAT and CHAMBERS,
77, 595
- and Milhorat, Adolph T. Mus-
cular exercise and nitrogen me-
tabolism of dogs, 77, 603
- and Lusk, Graham. Animal
calorimetry. XXXIX. Spe-
cific dynamic action in the nor-
mal and phlorhizinized dog,
85, 611
- . See DANN and CHAMBERS,
89, 675
- . See HIMWICH, CHAMBERS,
KOSKOFF, and NAHUM,
90, 417
- . See DANN, CHAMBERS, and
LUSK, 94, 511

Chambers, William H.—*continued.*

— See DANN and CHAMBERS,
95, 413

—, Kennard, Margaret A., Pol-
lack, Herbert, and Dann, Mar-
garet. Animal calorimetry.
XLII. The respiratory me-
tabolism of exercise and re-
covery in depancreatized dogs,
97, 525

— See DANN and CHAMBERS,
100, 493

**Chandler, Joseph P., and Lewis,
Howard B.** The intermediary
metabolism of phenylalanine,
87, lvi

— and —. Comparative studies
of the metabolism of the amino
acids. V. The oxidation of
phenylalanine and phenylpy-
ruvic acid in the organism of
the rabbit, 96, 619

— See BODANSKY, JAFFE, and
CHANDLER, 97, lxvi

Chandler, S. B. See TWEEDY
and CHANDLER, 78, lxxiii

**Chanutin, Alfred, and Beard,
Howard H.** A study on the
effect of feeding creatine on
growth and its distribution in
the liver and muscle of normal
mice, 78, 167

— and Silvette, Herbert. The
influence of fasting and crea-
tine feeding upon the creatine
content of the tissues and blood
of the white rat, 80, 589

— and —. A study of creatine
metabolism in the nephrec-
tomized white rat, 85, 179

— The effect of fasting and
creatine ingestion upon the
creatine and nitrogen content
of the white rat, 87, viii

— Studies on the creatine and
nitrogen content of the whole
rat after the feeding of a vari-
ety of diets and after nephrec-
tomy, 89, 765

— and Shearer, Lucy D. The
effect of fasting on the creatine
and nitrogen content of the
body and muscle of the white
rat, 91, 475

—, Ferris, Eugene B., and Wood,
J. Edwin. Studies in experi-
mental kidney insufficiency,
92, lxxxii

— The influence of growth on
a number of constituents of the
white rat, 93, 31

— Studies in kidney insuffici-
ency produced by partial ne-
phrectomy; liver diets, 97, ciii

— and Kinard, F. W. The rela-
tionship between muscle crea-
tine and creatinine coefficient,
99, 125

—, Butt, H. R., and Royster, L. T.
A study of progressive pseudo-
hypertrophic muscular dystro-
phy in children after the ad-
ministration of glycine and
creatine, 100, xxvi

Chapman, Edna E. See BROWN,
SHOHL, CHAPMAN, ROSE, and
SAURWEIN, 98, 207

— See SHOHL, BROWN, CHAP-
MAN, ROSE, and SAURWEIN,
98, 215

Chargaff, Erwin. See ANDERSON
and CHARGAFF, 84, 703
85, 77

—, Pangborn, Mary C., and An-
derson, R. J. The chemistry
of the lipoids of tubercle bacilli.
XXIII. Separation of the lip-

- oid fractions from the timothy bacillus, 90, 45
- See PANGBORN, CHARGAFF, and ANDERSON, 98, 43
- Charles, A. F., and Scott, D. A. Action of acid alcohol on insulin, 92, 289
- Chase, Barbara W. The absorption of leucine, valine, and their isomers from the gastrointestinal tract of the white rat, 100, xxvii
- Chase, Lillian A. Some peculiarities of the insulin reaction in humans, 92, liii
- Chase, W. D. See SULLIVAN, HESS, and CHASE, 87, xxiv
- Chen, A. L. See JENSEN, CHEN, and CHEN, 100, lvii
- Chen, K. K. See JENSEN and CHEN, 82, 397
- 87, xxxi, 741, 755
- 97, cx
- See JENSEN, CHEN, and CHEN, 100, lvii
- Chesley, L. C. The validity of the viscometric and Wohlgemuth methods for the quantitative determination of amylase, 92, 171
- Chibnall, Albert Charles, and Miller, E. J. Some observations on the distribution of nitrogen in plant extracts that contain a high proportion of nitrate nitrogen, 90, 189
- Chobot, Robert. See STULL, COOKE, and CHOBOT, 92, 569
- Christman, A. A., and Mosier, E. C. Purine metabolism. II. The effect of the ingestion of glycine on the excretion of endogenous uric acid, 83, 11
- Purine metabolism. III. Diet and caging as factors in the allantoin excretion of the rabbit, 86, 477
- and Ravwitch, Sarah. The determination of uric acid in human urine, 95, 115
- A simple procedure for the detection of carbon monoxide in blood, 97, xevi
- Church, Anna E. See NORRIS and CHURCH, 85, 477
- 87, 139
- 89, 421, 437, 589
- See SURE, KIK, and CHURCH, 97, vi
- Clark, Byron B., and Gibson, R. B. A bicolorimetric method for the determination of methemoglobin, 100, 205
- Clark, E. P. Studies on gossypol. II. Concerning the nature of Carruth's D gossypol, 76, 229
- III. The oxidation of gossypol, 77, 81
- IV. Apogossypol, 78, 159
- Clarke, H. T. See BEHR, PALMER, and CLARKE, 88, 131
- and Inouye, J. M. Some observations on the action of alkali upon cystine and cysteine, 89, 399
- and —. The alkaline deamination of derivatives of cysteine, 94, 541
- The action of sulfite upon cystine, 97, 235
- See PALMER and CLARKE, 99, 435
- Clarke, Miriam F. See COLLETT and CLARKE, 82, 429

Clarke, Miriam F.—*continued*.

— See COLLETT, CLARKE, and
MCGAVRAN, 82, 435

— See ARNIM, CLARKE, ANDER-
SON, and SMITH, 100, viii

Clawson, T. Alfred, Jr. See
POWER and CLAWSON,

78, lvi

Clemence, Leroy W. See RAI-
ZISS, SEVERAC, and CLEMENCE,
97, xcvi

Closs, John O. See KAHLENBERG
and CLOSS, 83, 261
85, 783

— See CORI and CLOSS,
100, xxxii

Closs, Karl, Loeb, Leo, and Mac-
Kay, Eaton M. The effect of
an acid extract of the anterior
pituitary on the iodine concen-
tration of the blood and thy-
roid gland, 96, 585

Clowes, G. H. A. See WALDEN
and CLOWES, 97, xi

Coghill, Robert D., and Bird,
Orson D. The chemical study
of bacteria. XXIV. A proxi-
mate chemical analysis of the
timothy bacillus, 81, 115

— The nucleic acid of the
timothy bacillus, 90, 57

— See DAFT and COGHILL,
90, 341

Cohn, David J. See HEIDELBER-
GER, ROSENTHAL, COHN, and
FRIEDMAN, 78, lxvi

— See HEIDELBERGER,
SHWARTZMAN, and COHN,
78, lxxvi

Cohn, Edwin J., Minot, George
R., Alles, Gordon A., and Sal-
ter, William T. The nature

of the material in liver effective
in pernicious anemia. II,

77, 325

— and Green, Arda Alden. Phy-
sicochemical methods of char-
acterizing proteins. VIII. The
apparent dissociation constants
of proteins calculated from
their solubilities and activity
coefficients in concentrated salt
solutions, 78, xxxii

—, McMeekin, Thomas L., and
Minot, George R. The nature
of the material effective in
pernicious anemia. IV,

87, xlix

—, —, Edsall, John T., and
Weare, John H. The electri-
cal forces in systems containing
biological components. I. The
solubility of aliphatic amino
acids in alcohol-water mixtures
containing neutral salts,

92, xlv

—, —, —, and Blanchard, M. H.
The electrical forces in systems
containing biological compo-
nents. II. Molal volumes of
amino acids, proteins, and cer-
tain related substances,

100, xxviii

Cole, Versa V. A study on the
phosphorus distribution in rat
striated muscle as influenced by
age, diet, and irradiated ergos-
terol, 92, xv

— and Koch, Fred C. A study
on the phosphorus distribution
in rat striated muscle as influ-
enced by age, diet, and irradi-
ated ergosterol, 94, 263

Cole, W. M. See NELSON and
COLE, 92, xxviii

- Collett, Mary E. On the question of the specificity of the intracellular dehydrogenases. I. The dehydrogenase of cunner muscle, 78, 685
- and Clarke, Miriam F. On the question of the specificity of the intracellular dehydrogenases. II. The effect of poisons upon the dehydrogenase systems of frog and of fish muscle, 82, 429
- , —, and McGavran, Joyce. On the question of the specificity of the intracellular dehydrogenases. III. The dehydrogenases of frog muscle, 82, 435
- , Rheinberger, Margaret, and Little, Elizabeth G. On the question of the specificity of the intracellular dehydrogenases. V. Toxicity of arsenic, selenium, and tellurium compounds to the dehydrogenase systems of frog and fish muscle, 100, 271
- Collins, Dean A., and Scott, F. H. The freezing points of serum and corpuscles, 97, 189
- Collip, J. B., Browne, J. S. L., and Thomson, D. L. The relation of emmenin to other estrogenic hormones, 97, xvii
- , Thomson, D. L., and Selye, Hans. Physiological properties of the anterior pituitary-like hormone, 100, xxxi
- , —, and —. Physiological properties of certain pituitary extracts, 100, xxxii
- Conant, James B., and Scott, Norman D. A spectrophotometric study of certain equilibria involving the oxidation of hemoglobin to methemoglobin, 76, 207
- , —, and Douglass, W. F. An improved method of determining methemoglobin, 76, 223
- , Alles, Gordon A., and Tongberg, Carl O. The electro-metric titration of hemin and hematin, 79, 89
- and McGrew, Ralph V. An inquiry into the existence of intermediate compounds in the oxygenation of hemoglobin, 85, 421
- and Tongberg, Carl O. The oxidation-reduction potentials of hemin and related substances. I. The potentials of various hemins and hematins in the absence and presence of pyridine, 86, 733
- and —. The α -oxidation of acetaldehyde and the mechanism of the oxidation of lactic acid, 88, 701
- See WRIGHT, CONANT, and KAMERLING, 94, 411
- and Pappenheimer, Alwin M., Jr. A redetermination of the oxidation potential of the hemoglobin-methemoglobin system, 98, 57
- Conklin, Claire. See McCLENDON, ANDERSON, STEGGERDA, CONKLIN, and WHITAKER, 77, 413
- Connolly, J. M. See BLATHERWICK, MEDLAR, CONNOLLY, and BRADSHAW, 92, lxxxiv

- Connor, Charles L.** Studies on lipochromes. III. The quantitative estimation of carotin in blood and tissues, 77, 619
- Cook, Charles A., and Smith, Arthur H.** The determination of isopropyl alcohol in the presence of acetone in the urine, 85, 251
- See VICKERY and COOK, 94, 393
- Cook, Sherburne F.** The structure and composition of hemosiderin, 82, 595
- Cooke, Robert A.** See STULL, COOKE, and CHOBOT, 92, 569
- Cool, Raymond D.** Determination of small amounts of ethyl iodide, 97, 47
- Cooley, Thomas B.** See HUNSCHER, COPE, NOLL, MACY, COOLEY, PENBERTHY, and ARMSTRONG, 97, lxiv
- Coolidge, Thomas B.** See REDFIELD, COOLIDGE, and SHOTTS, 76, 185
- See REDFIELD, COOLIDGE, and MONTGOMERY, 76, 197
- Cytochrome and yeast iron, 98, 755
- Coons, Callie Mae, and Blunt, Katharine.** The retention of nitrogen, calcium, phosphorus, and magnesium by pregnant women, 86, 1
- Iron retention by women during pregnancy, 97, 215
- Cooper, Frank B.** Chemistry of the tubercle bacillus. I. Analysis of bacillus Calmette-Guérin (BCG), 88, 485
- II. Analysis of the medium which produced fifty grams of R and S type of bacillus Calmette-Guérin (BCG), 88, 493
- Cooper, Mary A.** See QUICK, 92, 65
95, 189
96, 73, 83
97, 403
98, 157, 537
- See QUICK and COOPER, 99, 119
- Cope, Frances.** See HUNSCHER, COPE, NOLL, MACY, COOLEY, PENBERTHY, and ARMSTRONG, 97, lxiv
- See HUNSCHER, COPE, NOLL, and MACY, 100, lv
- Corbet, Ruth E., Geisinger, Helen H., and Holmes, Harry N.** Substances which interfere with the antimony trichloride test for vitamin A, 100, 657
- Cori, Carl F., and Cori, Gerty T.** The fate of sugar in the animal body. VIII. The influence of insulin on the utilization of glucose, fructose, and dihydroxyacetone, 76, 755
- and —. The influence of epinephrine and insulin on the carbohydrate balance of rats in postabsorptive stage, 78, lxii
- and —. The mechanism of epinephrine action. I. The influence of epinephrine on the carbohydrate metabolism of fasting rats, with a note on new formation of carbohydrates, 79, 309

- and —. II. The influence of epinephrine and insulin on the carbohydrate metabolism of rats in the postabsorptive state, 79, 321
- and —. III. The influence of epinephrine on the utilization of absorbed glucose, 79, 343
- and —. Glycogen formation in the liver from *d*- and *l*-lactic acid, 81, 389
- and —. The mechanism of epinephrine action. IV. The influence of epinephrine on lactic acid production and blood sugar utilization, 84, 683
- and —. The effect of epinephrine on arterial and venous blood sugar in men, 84, 699
- and —. The influence of insulin and epinephrine on glycogen formation in the liver, 85, 275
- See CORI, CORI, and BUCHWALD, 86, 375
- , Villiaume, Edward L., and Cori, Gerty T. Studies on intestinal absorption. II. The absorption of ethyl alcohol, 87, 19
- and Buchwald, K. W. The action of epinephrine and insulin under anaerobic conditions, 87, xxxviii
- and Cori, Gerty T. The influence of epinephrine and insulin on the hexosephosphate content of muscle, 92, lii
- See BUCHWALD and CORI, 92, 355
- and Buchwald, K. W. The calorogenic action of epinephrine in frogs before and after hepatectomy, 92, 367
- See CORI and CORI, 94, 561
- and Cori, Gerty T. The influence of epinephrine and insulin injections on hexosephosphate content of muscle, 94, 581
- and —. Plasma phosphates during changes in carbohydrate metabolism in normal and adrenalectomized animals, 97, lxxxv
- See CORI and CORI, 99, 493
- and Cori, Gerty T. A comparison of total carbohydrate and glycogen content of mammalian muscle, 100, 323
- Cori, Gerty T. See CORI and CORI, 76, 755
- 78, lxii
- 79, 309, 321, 343
- 81, 389
- 84, 683, 699
- 85, 275
- , Cori, Carl F., and Buchwald, K. W. The mechanism of epinephrine action. V. Changes in liver glycogen and blood lactic acid after injection of epinephrine and insulin, 86, 375
- Studies on intestinal absorption. I. The absorption of lactic acid, 87, 13
- See CORI, VILLIAUME, and CORI, 87, 19
- See CORI and CORI, 92, lii

Cori, Gerty T.—*continued.*

— and **Cori, Carl F.** A method for the determination of hexose-monophosphate in muscle,

94, 561

— See **CORI** and **CORI**,

94, 581

— Carbohydrate changes during anaerobiosis of mammalian muscle,

96, 259

— See **CORI** and **CORI**,

97, lxxxv

— and **Cori, Carl F.** Changes in hexosephosphate, glycogen, and lactic acid during contraction and recovery of mammalian muscle,

99, 493

— See **CORI** and **CORI**,

100, 323

— and **Closs, John O.** Fermentable sugar in heart and skeletal muscle,

100, xxxii

Corley, Ralph C. Pentose metabolism. II. Factors affecting the disposal of *l*-arabinose and *d*-xylose in the rabbit,

76, 23

— Factors in the metabolism of lactose. III. Galactose tolerance in the rabbit. The effect of the simultaneous enteral administration of dextrose and levulose on galactose tolerance in the rabbit,

76, 31

— Studies on the metabolism of levulose, with a new method for its determination in blood and urine,

78, lx

— Studies on the metabolism of levulose with a colorimetric method for its determination in blood and urine,

81, 81

— Factors in the metabolism of lactose. IV. The disposal of lactose administered to the rabbit,

81, 541

— Amino acid catabolism. II. The fate of β -alanine and ϵ -aminocaproic acid in the phlorhizinized dog,

81, 545

— and **Marvel, Carl S.** Amino acid catabolism. III. The fate of the α -hydroxy derivatives of propionic, butyric, valeric, and caproic acids in the phlorhizinized dog,

82, 77

— Pentose metabolism. III. A comparison of the rates of disposal of *d*-arabinose and *l*-arabinose in the rabbit,

82, 269

— See **GERBER**, **NIELSEN**, and **CORLEY**,

100, xlix

Corner, George W. See **BLOOR**, **OKEY**, and **CORNER**,

86, 291

— See **OKEY**, **BLOOR**, and **CORNER**,

86, 307

Cortese, Frank. See **LEVENE** and **CORTESE**,

92, 53

98, 17

Cowgill, George R. See **GILMAN** and **COWGILL**,

88, 743

— See **HOLLANDER** and **COWGILL**,

91, 151

— See **BLOCK**, **COWGILL**, and **KLOTZ**,

94, 765

— See **BLOCK** and **COWGILL**,

96, 127

— See **BURACK** and **COWGILL**,

96, 673, 685

— See **BLOCK** and **COWGILL**,

97, 421

98, 637

- Cox, Gerald J. The preparation of *d*-arginine monohydrochloride, 78, 475
 —. See EAGLES and Cox, 80, 249
 —, King, Harriette, and Berg, Clarence P. The preparation of lysine, histidine, and arginine from hydrolyzed blood corpuscle paste by electrical transport, 81, 755
 —, Smythe, C. V., and Fishback, C. F. The nephropathogenic action of cystine, 82, 95
 — and King, Harriette. Note on the preparation of the mono-amino acids from their picrates, 84, 533
 —, Dodds, Mary L., Wigman, Helen B., and Murphy, F. J. The effects of high doses of aluminum and iron on phosphorus metabolism, 92, xi
 Cox, Warren M., Jr. See BILLS, HONEYWELL, and Cox, 80, 557
 —. See BILLS and Cox, 84, 455
 —. See BILLS, Cox, and STEEL, 84, 655
 —. See BILLS, McDONALD, and Cox, 87, liii
 — and Bills, Charles E. Antirickettic substances. X. On the relation of the isoergosterols to vitamin D, 88, 709
 —. See BILLS, HONEYWELL, and Cox, 92, 601
 —. The nutritive value of pure fatty acid esters, 97, xxxvii
 Coyne, F. P. See BARGER and COYNE, 78, iii
 Cozad, Florence. See SHOHL, BROWN, ROSE, SMITH, and COZAD, 92, x, 711
 Cretcher, Leonard H. See NELSON and CRETCHER, 94, 147
 —. See RENFREW and CRETCHER, 97, 503
 Crist, John W., and Dye, Marie. The association of vitamin A with greenness in plant tissue. II. The vitamin A content of asparagus, 81, 525
 — and —. III. Vitamin A content of asparagus grown under light of various qualities, 91, 127
 Crowder, J. A., and Anderson, R. J. A contribution to the chemistry of *Lactobacillus acidophilus*. I. The occurrence of free, optically active, dihydroxystearic acid in the fat extracted from *Lactobacillus acidophilus*, 97, 393
 Crum, Carlos L. See BOYD, CRUM, and LYMAN, 95, 29
 Csonka, Frank A., Phillips, Max, and Jones, D. Breese. Lignin as a factor in the formation of hippuric acid, 78, xxiv
 —. See JONES and CSONKA, 78, 289
 — and Jones, D. Breese. Studies on glutelins. V. The glutelins of rye (*Secale cereale*), and barley (*Hordeum vulgare*), 82, 17
 —, Phillips, Max, and Jones, D. Breese. Studies on lignin metabolism, 85, 65

Csonka, Frank A.—*continued*.

—, Horn, Millard J., and Jones, D. Breese. Studies on glutelins, 87, xviii

—, See JONES and CSONKA, 88, 305

—, Horn, Millard J., and Jones, D. Breese. Studies on glutelins. VI. The optical rotation of the glutelins of wheat, rye, barley, maize, and rice, 89, 267

— and Jones, D. Breese. Studies on glutelins, 92, xxxix

— and Horn, Millard J. Studies on the effect of alkali on protein. I. The optical behavior of "racemic protein," 93, 677

—, Studies on glutelins. VII. Cystine, tryptophane, and tyrosine content of glutelins, 97, 281

—, See JONES and CSONKA, 97, xxix

— and Nicolet, Ben H. The preparation of optically active thiohydantoins and the racemization of amino acids as their azlactones, 99, 213

—, Proteins of yeast (*Saccharomyces cerevisiae*), 100, xxxiii

Culhane, Kathleen. Does cabbage fed to rabbits increase serum calcium? A reply to Kapsinow and Underhill, 86, 113

Cullen, Glenn E., and Earle, Imogene P. On the determination of the pH of the blood. I. The accuracy of the quinhydrone electrode for determining the pH of blood plasma or serum, 76, 565

—, See EARLE and CULLEN, 76, 583

—, An improved form of the quinhydrone electrode, 83, 535

—, See EARLE and CULLEN, 83, 539

— and Earle, Imogene P. Studies of the acid-base condition of blood. II. Physiological changes in acid-base condition throughout the day, 83, 545

—, Harrison, T. R., Calhoun, J. A., Wilkins, W. E., and Pilcher, Cobb. The relative importance of the chemical and the reflex control of respiration in the mechanism of cardiac dyspnea, 92, iv

—, See ROBINSON, PRICE, and CULLEN, 100, lxxxii, lxxxiii

Curry, Ethel F. See CERECEDO, 93, 269, 283

Curtis, George H. See WEST, CURTIS, and HOAGLAND, 100, cii

Curtis, Jack M., and Doisy, Edward A. The bioassay of theelol, 91, 647

—, Comparison of theelin and theelol with extracts of liquor folliculi, 97, liv

—, A rapid method for the preparation of theelin, 100, xxxiii

Czarnetzky, E. J., and Schmidt, Carl L. A. The apparent dissociation constants of hydroxyvaline, 92, 453

— and —, The isolation of norleucine, with evidence for its identity, and some thermodynamic data based on the

dissociation pressures of the compounds which the isomeric leucines form with ammonia and hydrogen chloride, 97, 333

D

Daft, Floyd Shelton, and Coghill, Robert D. The alkaline decomposition of serine, 90, 341

— Nitrogen conservation and hemoglobin construction as influenced by iron salts in anemic dogs, 100, xxxiv

Dahl, S. J. See ELLIS and ZELLER, 89, 185

Dailey, Mary Elizabeth. The equilibrium between cerebrospinal fluid and blood plasma. VI. The distribution of sodium between cerebrospinal fluid and blood serum, 93, 5

—, Fremont-Smith, Frank, and Carroll, Margaret P. The relative composition of sea water and of the blood of *Limulus polyphemus*, 93, 17

Dakin, H. D., and West, Randolph. A general reaction of amino acids, 78, 91

— and —. A general reaction of amino acids. II, 78, 745

— and —. Some aromatic derivatives of substituted acetyl-aminoacetones, 78, 757

— The condensation of aromatic aldehydes with glycine and acetylglycine, 82, 439

— and West, Randolph. Note on trimethyl- α -glutaro-betaïne, 83, 773

— Aromatic aldehyde derivatives of proteins, peptides, and amino acids, 84, 675

— and West, Randolph. A tri-basic acid present in liver, convertible into pyrrole derivatives, 92, 117

— β -Amino-*n*-valeric acid, 99, 531

Dalton, John B., Kirk, Paul L., and Schmidt, Carl L. A. The apparent dissociation constants of diiodotyrosine, its heat of solution, and its apparent heat of ionization, 88, 589

Daly, Cornelius A., and Knudson, Arthur. The acid-base equilibrium and phosphorus metabolism in hyperthermia, 97, lvii

D'Amour, F. E. Effect of estrin injections on the anterior lobe, 92, lxxxv

Daniels, Albert Clare, and Luck, James Murray. Further studies of the effect of insulin on the amino acid content of blood, 91, 119

Danielson, Irvin S. See NORRIS and DANIELSON, 83, 469

Dann, Margaret, and Chambers, William H. Animal calorimetry. XL. The metabolism of glucose administered to the fasting dog, 89, 675

—, —, and Lusk, Graham. Animal calorimetry. XLI. The influence of phlorhizin glycosuria on the metabolism of dogs after thyroidectomy, 94, 511

— and —. Glycogenesis from glucose administered to the

Dann, Margaret—*continued*.

— See CHAMBERS, KENNARD,
POLLACK, and DANN,

97, 525

— and Chambers, William H.
Factors influencing the me-
tabolism of glucose ingested by
fasting dogs,

100, 493

Dauphinee, James A. See HUN-
TER and DAUPHINEE,

85, 627

Davenport, H. A., and Davenport,
Helen K. The lactic acid con-
tent of resting mammalian mus-
cle,

76, 651

— See SACKS and DAVENPORT,

79, 493

—, Davenport, Helen K., and
Ranson, S. W. Chemical stud-
ies of muscle contracture. I.
The lactic acid content,

79, 499

— and Sacks, Jacob. Muscle
phosphorus. II. The acid hy-
drolysis of lactacidogen,

81, 469

— See DIXON, DAVENPORT, and
RANSON,

82, 61

—, Davenport, Helen K., and
Ranson, S. W. Chemical stud-
ies of muscle contracture.
III. The change in glycogen
during shortening produced by
tetanus toxin,

82, 499

— See DIXON, DAVENPORT,
and RANSON,

83, 737

—, Dixon, H. H., and Ranson, S.
W. Muscle phosphorus. III.
The distribution of acid-solu-
ble phosphorus compounds dur-
ing parathyroid tetany,

83, 741

—, Davenport, Helen K., and
Ranson, S. W. Chemical stud-
ies of muscle contracture. IV.
Changes in phosphorus, nitro-
gen, and fat produced by tet-
anus toxin,

87, 295

Davenport, Helen K. See DAV-
ENPORT and DAVENPORT,

76, 651

— See DAVENPORT, DAVEN-
PORT, and RANSON,

79, 499

82, 499

87, 295

Davis, J. E., and van Dyke, H. B.
The measurement of the oxy-
gen consumption of small ani-
mals,

95, 73

— and —. The oxygen con-
sumption of fasting white mice,

100, 455

Davis, Martha E., and Bodansky,
Meyer. Changes in the com-
position of the blood in the
rabbit during pregnancy and
lactation,

97, lv

Davis, Russell E. The metab-
olism of tributyrin,

88, 67

Day, Alexander A. See STEARN
and DAY,

85, 299

Day, P. L. See SHERMAN,
QUINN, DAY, and MILLER,

78, 293

Deakers, T. See DUNN, BUTLER,
and DEAKERS,

99, 217

Deegan, John K. See HUBBARD
and DEEGAN,

78, lvii

86, 575

Deere, Charles J. See HARNED
and DEERE,

97, lxxxii

Degering, Edward F., and Upson,
Fred W. Catalytic oxidation
of *d*-glucose and related sugars

- by oxygen in the presence of iron pyrophosphates, 94, 423
- . Catalytic oxidation of the carbohydrates and related compounds by oxygen in the presence of iron pyrophosphates. II. Methyl alcohol, formaldehyde, formic acid, and sodium formate, 95, 409
- De Lawder, A. See JENSEN and DE LAWDER, 87, xli, 701
- Delfs, Eleanor. See HOLMES, LAVA, DELFS, and CASSIDY, 99, 417
- Derbigny, I. A. See SHERMAN and DERBIGNY, 99, 165
- Derow, M. A. See QUINN, HARTLEY, and DEROW, 89, 657
- Deuel, Harry J., Jr., Sandiford, Irene, Sandiford, Kathleen, and Boothby, Walter M. A study of the nitrogen minimum. The effect of sixty-three days of a protein-free diet on the nitrogen partition products in the urine and on the heat production, 76, 391
- , —, —, and —. The effect of thyroxin on the respiratory and nitrogen metabolism of a normal subject following prolonged nitrogen-free diet, 76, 407
- and Milhorat, Adolph T. On the alleged conversion of fat to carbohydrate. I. The metabolism of acetic acid, 78, 299
- . See NORD and DEUEL, 80, 115
- . The glucose tolerance curves in phlorhizinized dogs with and without glucose, 87, xxxvi
- . On the mechanism of phlorhizin diabetes. II. The relationship between the nutritional state and the glucose tolerance, 89, 77
- and Gulick, Margaret. The relation between alkali deficit and glucose tolerance in the dog, 89, 93
- , —, and Butts, Joseph S. The relative antiketogenic value of glucose and galactose, 92, xxiii
- and —. Studies on ketosis. I. The sexual variation in starvation ketosis, 96, 25
- , —, and Butts, Joseph S. Studies on ketosis. II. The comparative ketolytic action of glucose, galactose, fructose, and sucrose, 98, 333
- . See BUTTS and DEUEL, 100, 415
- . The sexual variation in the glycogen and fat content of the liver, 100, xxxv
- Devrient, W. C. See PARFENTJEV, DEVRIENT, and SOKOLOFF, 92, 33
- Diack, Samuel L., and Lewis, Howard B. Studies in the synthesis of hippuric acid in the animal organism. VII. A comparison of the rate of elimination of hippuric acid after the ingestion of sodium benzoate, benzyl alcohol, and benzyl esters of succinic acid, 77, 89
- Dickson, Allan D. See LINK, DICKSON, and WALKER, 84, 719
- . See LINK and DICKSON, 86, 491

- Dill, D. B. The calculation of cell volume changes as a function of hydrogen ion concentration, 76, 543
- , Bock, A. V., van Caulaert, C., Fölling, A., Hurxthal, L. M., and Henderson, L. J. Blood as a physicochemical system. VII. The composition and respiratory exchanges of human blood during recovery from pernicious anemia, 78, 191
- , See TALBOTT, FÖLLING, HENDERSON, DILL, EDWARDS, and BERGGREN, 78, 445
- , Bock, A. V., Lawrence, J. S., Talbott, J. H., and Henderson, L. J. Blood as a physicochemical system. VIII. Diabetic coma, 81, 551
- , See HURXTHAL, BOCK, TALBOTT, and DILL, 81, 681
- , See HENDERSON, BOCK, DILL, and EDWARDS, 87, 181
- , See FLORKIN, EDWARDS, DILL, and HENDERSON, 87, xxv
- , Talbott, J. H., Edwards, H. T., and Fölling, A. Oxygen transport, 87, xxvi
- and Edwards, H. T. Physicochemical properties of crocodile blood (*Crocodylus acutus*, Cuvier), 90, 515
- , See HENDERSON, DILL, EDWARDS, and MORGAN, 90, 697
- and Edwards, H. T. Temperature and muscular activity, 92, lxxxvii
- , —, Florkin, Marcel, and Campbell, R. W. Properties of dog blood, 95, 143
- , See TALBOTT, HENDERSON, EDWARDS, and DILL, 97, xl
- , Edwards, H. T., and Talbott, J. H. Alkalosis and the capacity for work, 97, lviii
- , Jones, B. F., Edwards, H. T., and Oberg, S. A. Salt economy in extreme dry heat, 100, 755
- , See EDWARDS, MARGARIA, and DILL, 100, xxxviii
- , See MARGARIA, EDWARDS, HENDERSON, and DILL, 100, lxxv
- Dillon, Robert T. See LEVENE and DILLON, 88, 753
- , 92, 769
- , See LEVENE, RAYMOND, and DILLON, 95, 699
- , 96, 449
- , See LEVENE and DILLON, 96, 461
- Dimick, Alice. See UNDERHILL and DIMICK, 76, 163
- Dionne, Maurice J., and Arenstam, Jacob J. The fluctuations of the capillary blood sugar in normal young women during a twenty-four hour period, 87, 393
- Dixon, H. H., Davenport, H. A., and Ranson, S. W. Chemical studies of muscle contracture. II. The distribution of phosphorus in frog muscle during delayed relaxation, 82, 61
- , —, and —. The calcium content of muscular tissue during parathyroid tetany, 83, 737
- , See DAVENPORT, DIXON, and RANSON, 83, 741

- Dmochowski, A.** See **LEVENE** and **DMOCHOWSKI**, 93, 563
- Dodds, Mary L.** See **COX, DODDS, WIGMAN, and MURPHY**, 92, xi
- Doebbeling, S.E.** See **CALDWELL** and **DOEBBELING**, 98, 553
- Doisy, Edward A.** See **LEVY** and **DOISY**, 77, 733
- See **THAYER, JORDAN, and DOISY**, 79, 53
- See **LEVY** and **DOISY**, 84, 749
- , **Veler, Clement D., and Thayer, Sidney A.** The preparation of the crystalline ovarian hormone from the urine of pregnant women, 86, 499
- See **VELER, THAYER, and DOISY**, 87, 357
- and **Thayer, Sidney A.** The preparation of theolol, 91, 641
- See **CURTIS** and **DOISY**, 91, 647
- See **THAYER, LEVIN, and DOISY**, 91, 655, 791
- See **KATZMAN** and **DOISY**, 97, lii
- See **KATZMAN** and **DOISY**, 98, 739
- See **MACCORQUODALE, THAYER, and DOISY**, 99, 327
- See **LEVIN, MACCORQUODALE, THAYER, and DOISY**, 100, lxii
- Dolin, B. T.** See **FISHBERG** and **DOLIN**, 97, lxxxviii
- Dommm, L. V.** See **GALLAGHER, DOMM, and KOCH**, 100, xlvii
- Donelson, Eva, Nims, Betty, Hunscher, Helen A., and Macy, Icie G.** Metabolism of women during the reproductive cycle. IV. Calcium and phosphorus utilization in late lactation and during subsequent reproductive rest, 91, 675
- See **HUNSCHER, DONELSON, NIMS, KENYON, and MACY**, 99, 507
- Dorcas, M. J.** See **SUPPLEE, DORCAS, and HESS**, 94, 749
- See **SUPPLEE, HANFORD, DORCAS, and BECK**, 95, 687
- See **SUPPLEE, BENDER, and DORCAS**, 97, 63
- See **SUPPLEE, BECK, and DORCAS**, 98, 769
- Dorfmann, Ralph.** See **DU VIGNEAUD, DORFMANN, and LORING**, 98, 577
- Douglass, W. F.** See **CONANT, SCOTT, and DOUGLASS**, 76, 223
- Dowler, V. B.** A new method for the determination of cysteine and cystine in the presence of blood and tissue, 78, xxxviii
- Downs, C. E.** See **HARDING** and **DOWNES**, 84, 335
- Drabkin, David L.** The yellow pigment of serum and muscle, 78, xii
- and **Ravdin, Isidor S.** The mechanism of convulsions in insulin hypoglycemia, 87, iii
- The normal pigment of the urine. III. A new method for its extraction, 88, 433

Eckstein, H. C.—*continued.*

nature of the proteins and lipids synthesized by the colon bacillus, 91, 395

— The highly unsaturated fatty acids in butter, 97, xxxv

Eddy, Walter H., Gurin, Samuel, and Keresztesy, John. The Williams-Waterman vitamin B₆, 87, 729

Edel, Frances. See **EXTON** and **ROSE**, 97, xxvii

Edsall, John T. Studies in the physical chemistry of muscle globulin. II. On some physicochemical properties of muscle globulin (myosin), 89, 289

— See **VON MURALT** and **EDSALL**, 89, 315, 351

— See **COHN**, **McMEEKIN**, **EDSALL**, and **WEARE**, 92, xlv

— See **COHN**, **McMEEKIN**, **EDSALL**, and **BLANCHARD**, 100, xxviii

Edwards, Beatrice G. See **EVERETT** and **EDWARDS**, 100, xlii

Edwards, H. T. See **TALBOTT**, **FÖLLING**, **HENDERSON**, **DILL**, **EDWARDS**, and **BERGGREN**, 78, 445

— See **HENDERSON**, **BOCK**, **DILL**, and **EDWARDS**, 87, 181

— See **FLORKIN**, **EDWARDS**, **DILL**, and **HENDERSON**, 87, xxv

— See **DILL**, **TALBOTT**, **EDWARDS**, and **FÖLLING**, 87, xxvi

— See **DILL** and **EDWARDS**, 90, 515

— See **HENDERSON**, **DILL**, **EDWARDS**, and **MORGAN**, 90, 697

— See **DILL** and **EDWARDS**, 92, lxxvii

— See **DILL**, **EDWARDS**, **FLORKIN**, and **CAMPBELL**, 95, 143

— See **TALBOTT**, **HENDERSON**, **EDWARDS**, and **DILL**, 97, xl

— See **DILL**, **EDWARDS**, and **TALBOTT**, 97, lviii

— See **DILL**, **JONES**, **EDWARDS**, and **OBERG**, 100, 755

— **MARGARIA, R.**, and **DILL, D. B.** The removal of lactic acid after exercise, 100, xxxviii

— See **MARGARIA**, **EDWARDS**, **HENDERSON**, and **DILL**, 100, lxxv

Eggert, Carl. See **MEYER** and **EGGERT**, 99, 265

Ehrenfest, Ellen. The influence of monoiodoacetate on oxidation and fermentation by yeast, 97, lxxvi

— The removal of iodoacetate inhibition of yeast fermentation, 100, xxxviii

Eichelberger, L. See **KOEHLER** and **EICHELBERGER**, 87, xxxviii

Eisenman, Anna J. A note on the Van Slyke method for the determination of chlorides in blood and tissue, 82, 411

— The effect of temperature on the carbon dioxide absorption curve of human blood, 99, 359

Eiserson, Leo. See **PETERS** and **EISENBERG**, 84, 155

- Elbaum, Henry. See CERECEDO, 93, 269, 283
- Elden, C. A. See ROBSCHUIT-ROBBINS, ELDEN, SPERRY, and WHIPPLE, 79, 563
- , Sperry, Warren M., Robs-
schuit-Robbins, Frieda S., and
Whipple, G. H. Blood regen-
eration in severe anemia.
XIII. Influence of certain cop-
per salts upon hemoglobin out-
put, 79, 577
- , See SPERRY, ELDEN, ROB-
SCHUIT-ROBBINS, and WHIP-
PLE, 81, 251
- Elderfield, Robert C. See JA-
COBS, ELDERFIELD, GRAVE, and
WIGNALL, 91, 617
- , See JACOBS and ELDERFIELD,
91, 625
92, 313
- , See JACOBS, ELDERFIELD,
HOFFMANN, and GRAVE,
93, 127
- , See JACOBS and ELDER-
FIELD, 96, 357
97, 727
99, 693
100, 671
- Elema, B. Theory of the rever-
sible two-step oxidation,
100, 149
- Ellinwood, E. H. See WALKER,
ELLINWOOD, and REISINGER,
97, lxxii
- Elliott, A. H. See BISCHOFF and
ELLIOTT, 100, xvii
- Ellis, N. R., and Zeller, J. H.
Soft pork studies. IV. The
influence of a ration low in fat
upon the composition of the
body fat of hogs, 89, 185
- , The effect of ingested cot-
tonseed oil on the composition
of body fat, 92, xxxv
- , Rothwell, Carmen S., and
Pool, W. O. The effect of
ingested cottonseed oil on the
composition of body fat,
92, 385
- Ellis, Ruth H. See ROSE, ELLIS,
and HELMING, 77, 171
- , See ROSE, ELLIS, WINDUS,
and CATHERWOOD, 92, lxvi
- and Rose, William C. Feed-
ing experiments with mixtures
of highly purified amino acids.
II. The supplementing effect
of proteins, 94, 167
- Elmslie, W. P., and Steenbock,
H. Calcium and magnesium
relations in the animal,
82, 611
- Elsom, Kendall A. See WALKER
and ELSOM, 91, 593
- Elvehjem, C. A. See WADDELL,
STEENBOCK, ELVEHJEM, and
HART, 77, 769
- , See WADDELL, ELVEHJEM,
STEENBOCK, and HART,
77, 777
- , See HART, STEENBOCK,
WADDELL, and ELVEHJEM,
77, 797
- , See PETERSON and ELVE-
HJEM, 78, 215
- and Lindow, C. W. The
determination of copper in
biological materials,
81, 435
- , See LINDOW, ELVEHJEM, and
PETERSON, 82, 465
- and Hart, E. B. The copper
content of feedingstuffs,
82, 473

Elvehjem, C. A.—*continued.*

- , Steenbock, H., and Hart, E. B. Is copper a constituent of the hemoglobin molecule? The distribution of copper in blood, 83, 21
- , —, and —. The effect of diet on the copper content of milk, 83, 27
- See WADDELL, STEENBOCK, ELVEHJEM, and HART, 83, 251
- and Hart, E. B. The relation of iron and copper to hemoglobin synthesis in the chick, 84, 131
- , Kemmerer, A. R., Hart, E. B., and Halpin, J. G. The effect of the diet of the hen on the iron and copper content of the egg, 85, 89
- A note on the determination of iron in milk and other biological materials, 86, 463
- The rôle of iron and copper in the growth and metabolism of yeast, 90, 111
- and Hart, E. B. Synthetic rations and hemoglobin building. A note on the Drabkin-Waggoner modification of the Biazzo method for determining copper, 91, 37
- See KEMMERER, ELVEHJEM, and HART, 92, 623
- and Kemmerer, A. R. An improved technique for the production of nutritional anemia in rats, 93, 189
- , Steenbock, H., and Hart, E. B. Ineffectiveness of purified glutamic acid as a supplement to iron in the correction of nutritional anemia, 93, 197

- The preparation of standard acid hematin solutions from hemin, 93, 203
- and Hart, E. B. The necessity of copper as a supplement to iron for hemoglobin formation in the pig, 95, 363
- See TODD and ELVEHJEM, 96, 609
- and Neu, V. F. Studies in vitamin A avitaminosis in the chick, 97, 71
- and Peterson, W. H. The hemoglobin content of the blood of infants, 97, xi
- The action of copper in iron metabolism, 97, xvi
- See STARE and ELVEHJEM, 97, 511
- See KLINE, KEENAN, ELVEHJEM, and HART, 98, 121
- and Sherman, W. C. The action of copper in iron metabolism, 98, 309
- See KLINE, KEENAN, ELVEHJEM, and HART, 99, 295
- , Kline, O. L., Keenan, J. A., and Hart, E. B. A study of the heat stability of the vitamin B factors required by the chick, 99, 309
- See STARE and ELVEHJEM, 99, 473
- and Schultze, M. O. The relation of iron and copper to the reticulocyte response in anemic rats, 100, xxxix
- Embden, Gustav. Microdetermination of ammonia in the muscles of the frog, 94, 315
- Emerson, Oliver H., and Cerecedo, Leopold R. Studies on the physiology of pyrimidines. II. The metabolism of the nu-

- cleosides of uracil and cytosine, 87, 453
- and Kirk, Paul L. The apparent dissociation constant of glycine ethyl ester, 87, 597
- , —, and Schmidt, Carl L. A. The apparent dissociation constants of methionine and of isoserine, 92, 449
- Erikson, Statie E., and Okey, Ruth. Studies of the metabolism of women. V. The components concerned in the cyclic variations in the level of total non-protein nitrogen in the blood of normal women, 91, 715
- , Boyden, Ruth E., Martin, J. Holmes, and Insko, W. M., Jr. The iron and copper content of egg yolk, 100, xl
- Evans, E. A., Jr. See JENSEN and EVANS, 97, xlviii
- and Schock, E. D. Further observations on the chemistry of insulin, 100, xli
- Evans, Herbert M., and Burr, George O. On the amount of vitamin B required during lactation, 76, 263
- and —. Development of paralysis in the suckling young of mothers deprived of vitamin E, 76, 273
- and —. A new differentiation between the antineuritic vitamin B and the purely growth-promoting vitamin B, 77, 231
- The effects of inadequate vitamin A on the sexual physiology of the female, 77, 651
- and Lepkovsky, Samuel. Sparing action of fat on the antineuritic vitamin B, 83, 269
- See LEPKOVSKY, WOOD, and EVANS, 87, 239
- and Lepkovsky, Samuel. Beneficial effects of fat in high sucrose diets when the requirements for antineuritic vitamin B and the fat-soluble vitamin are fully satisfied, 92, 615
- and —. Vital need of the body for certain unsaturated fatty acids. I. Experiments with fat-free diets in which sucrose furnishes the sole source of energy, 96, 143
- and —. II. Experiments with high fat diets in which saturated fatty acids furnish the sole source of energy, 96, 157
- and —. The sparing action of fat on vitamin B. II. The rôle played by the melting point and the degree of unsaturation of various fats, 96, 165
- and —. III. The rôle played by glycerides of single fatty acids, 96, 179
- and —. Vital need of the body for certain unsaturated fatty acids. III. Inability of the rat organism to synthesize the essential unsaturated fatty acids, 99, 231
- and —. The sparing action of fat on vitamin B. IV. Is it necessary for fat to interact with vitamin B in the alimentary canal to exert its sparing effect? 99, 235
- and —. V. The rôle of glycerides of oleic acid, 99, 237

- Evans, Ruth E. See ROSE and McCOLLUM, 78, 535, 549
- Eveleth, Donald F., and Myers, Victor C. Studies on the determination of aluminum in animal tissues, 100, xlii
- Evenden, James. See NORD and DEUEL, 80, 115
- See GAEBLER, 81, 41
- See CHAMBERS and LUSK, 85, 611
- See DANN and CHAMBERS, 89, 675
- See DANN, CHAMBERS, and LUSK, 94, 511
- See CHAMBERS, KENNARD, POLLACK, and DANN, 97, 525
- See DANN and CHAMBERS, 100, 493
- Everett, Mark R., and Sheppard, Fay. Total sugar of blood and urine. II. The hydrolyzable sugar of blood, 80, 255
- Determination of sugar in blood. I. Observations upon Benedict's alkaline copper solution, 82, 369
- and Sheppard, Fay. Sugar of normal urine, 87, xxxv
- Total sugar of blood and urine. III. The reducing action of glutathione, 87, 761
- and Sheppard, Fay. The ketose of normal urine, 92, xxv
- and —. The nature of the sugar of normal urine. I. The phenylosazones, 96, 431
- and —. The nitrogen of alkaline mercury filtrates, 97, lxxxix
- and Edwards, Beatrice G. Reduction by oligosaccharides, 100, xlii
- Evvard, John M. See LAMB and EVVARD, 78, xxviii
- Ewing, Mary E. A method of collecting and preserving small blood samples for glucose determinations, 97, cvii
- Exton, William G., and Rose, Anton R. The clinical partition of blood protein by scopometry. II. Method, 97, xxvii
- F
- Fairhall, Lawrence T., and Heim, J. W. A rapid micromethod of chloride analysis, 97, xciii
- Falk, Emil A. See McCLELLAN, SPENCER, FALK, and DU BOIS, 80, 639
- See McCLELLAN, SPENCER, and FALK, 93, 419
- Falk, K. George. Directive influences in biological systems. I. Specificities of lipase actions, 96, 53
- and McQuire, Grace. Directive influences in biological systems. II. Lipase actions of Types I and II pneumococci, 97, 651
- Farinacci, Nicholas. See SMITH, 88, 97
- Fashena, Gladys J. On the nature of the saccharoid fraction of human blood, 100, 357
- Fay, Marion, and Hendrix, Byron M. The effect of acid denaturation upon the combining power of fibrinogen, 93, 667

- Felsher, Augusta. See MORGAN and GARRISON, 85, 687
- Felton, George E. See FREUDENBERG and FELTON, 99, 657
- Fenger, Frederic, Andrew, Robert H., and Ralston, A. Wheeler. On the isoelectric precipitation of pepsin. II, 80, 187
- Fenwick, Florence, and Gilman, Elizabeth. The use of the antimony-antimony trioxide electrode for determining the dissociation constants of certain local anesthetics and related compounds, 84, 605
- Ferguson, J. K. W., and Irving, Laurence. A method to determine the carbon dioxide content of muscle, 84, 143
- See IRVING, FOSTER, and FERGUSON, 95, 95
- A method to measure the tension of carbon dioxide in small amounts of blood, 95, 301
- Ferris, Eugene B. See CHANUTIN, FERRIS, and WOOD, 92, lxxxii
- Ferry, Ronald M., and Green, Arda Alden. Studies in the chemistry of hemoglobin. III. The equilibrium between oxygen and hemoglobin and its relation to changing hydrogen ion activity, 81, 175
- Field, Anna. See MORGAN and FIELD, 82, 579
- 88, 9
- Field, J. Thomas. See POE and FIELD, 99, 283
- Field, John. Studies on the starch-iodine reaction, 92, 413
- Field, Madeleine E. See LOEB, LORBERBLATT, and FIELD, 78, 417
- Finch, Myron W. See PUCHER and FINCH, 76, 331
- Finkle, Philip. The fate of tartaric acid in the human body, 100, 349
- Firor, W. M. See GROLLMAN and FIROR, 100, 429
- Fischer, Earl K. Oxidation-reduction potentials of certain sulfhydryl compounds, 89, 753
- Fishback, C. F. See COX, SMYTHE, and FISHBACK, 82, 95
- Fishberg, Ella H. The relations of the serum proteins and lipids to the osmotic pressure, 81, 205
- The significance of changes of viscosity in pathological sera, 85, 465
- The rate of disappearance of foreign sugar from the blood stream, 86, 665
- and Dolin, B. T. Hemogen-tic acid: a physiological oxidation-reduction system, 97, lxxxviii
- and Bierman, W. Acid-base balance in sweat, 97, 433
- Fisher, Jennie D. See HALLIDAY, 95, 371
- 96, 479
- Fiske, Cyrus H., and Subbarow, Yellapragada. Phosphocrea-tine, 81, 629
- and Logan, Milan A. The determination of calcium by alkalimetric titration. II. The precipitation of calcium in the presence of magnesium, phos-

- phate, and sulfate, with applications to the analysis of urine, 93, 211
- Fitch, Alice.** See DU VIGNEAUD, FITCH, PEKAREK, and LOCKWOOD, 94, 233
- Flanigan, G. E.** See SUPPLEE, FLANIGAN, KAHLENBERG, and HESS, 91, 773
- See SUPPLEE, KAHLENBERG, and FLANIGAN, 93, 705
- Fleck, Elmer E.** See JACOBS and FLECK, 88, 137, 153, 545
92, 487
96, 341
97, 57
- Flexner, Louis B.** See MICHAELIS and FLEXNER, 79, 689
- See BARRON, FLEXNER, and MICHAELIS, 81, 743
- Flinn, Frederick B., and Inouye, J. M.** Some physiological aspects of copper in the organism, 84, 101
- Florkin, Marcel, Edwards, H. T., Dill, D. B., and Henderson, L. J.** Oxygen utilization in the legs of normal men, 87, xxv
- Studies in the physical chemistry of the proteins. VII. The solubility of fibrinogen in concentrated salt solutions, 87, 629
- See DILL, EDWARDS, FLORKIN, and CAMPBELL, 95, 143
- Fölling, A.** See DILL, BOCK, VAN CAULAERT, FÖLLING, HURXTHAL, and HENDERSON, 78, 191
- See TALBOTT, FÖLLING, HENDERSON, DILL, EDWARDS, and BERGGREN, 78, 445
- See DILL, TALBOTT, EDWARDS, and FÖLLING, 87, xxvi
- Folin, Otto.** A new blood sugar method, 77, 421
- Supplementary note on the new ferricyanide method for blood sugar, 81, 231
- The nature of blood sugar, 81, 377
- Two revised copper methods for blood sugar determination, 82, 83
- and Marenzi, A. D. Tyrosine and tryptophane determinations in one-tenth gram of protein, 83, 89
- and —. An improved colorimetric method for the determination of cystine in proteins, 83, 103
- and —. The preparation of uric acid reagent completely free from phenol reagent, 83, 109
- and Malmros, Hagvin. An improved form of Folin's micro-method for blood sugar determinations, 83, 115
- and —. Blood sugar and fermentable blood sugar as determined by different methods, 83, 121
- Unlaked blood as a basis for blood analysis, 86, 173
- An improved method for the determination of uric acid in blood, 86, 179
- and Svedberg, Andrea. An improved distillation method

- for the determination of urea in blood, 88, 77
- and —. Micromethods for the determination of non-protein nitrogen, urea, uric acid, and sugar in unlaked blood, 88, 85
- and —. Diffusible non-protein constituents of blood and their distribution between plasma and corpuscles, 88, 715
- . The determination of ammonia in blood and other biological fluids, 97, 141
- Forbes, J. C., and Irving, Hazelwood.** An electrometric method for the determination of chlorides in whole blood and animal tissues, 83, 337
- . Solubility of bone in solutions of magnesium salts, 93, 255
- Fosbinder, Russel J., and Schoonover, Janetta.** An improved method of measuring glass electrode potentials, 88, 605
- Foster, G. L.** The isolation of 3,5-diiodotyrosine from the thyroid, 83, 345
- and **Gutman, Alexander B.** On the fate of diiodotyrosine in the animal organism, 87, 289
- . See **SCHOCKAERT** and **FOSTER**, 95, 89
- . See **LELAND** and **FOSTER**, 95, 165
- Foster, H. C.** See **IRVING**, **FOSTER**, and **FERGUSON**, 95, 95
- Foster, Mary Louise, Anslow, Gladys A., and Barnés, Doro-tea.** A study of some of the chemical characteristics and the absorption spectrum of cystine, 89, 665
- . See **ANSLOW** and **FOSTER**, 97, 37
- Foulger, John H.** The use of the Molisch (α -naphthol) reactions in the study of sugars in biological fluids, 92, 345
- . Two new color tests for hexoses, 99, 207
- Fouts, Paul J.** See **HELMER**, **FOUTS**, and **ZERFAS**, 100, liii
- Fox, Edward L.** See **CARPENTER**, **FOX**, and **SEREQUE**, 82, 335
83, 211
- Franke, Kurt W.** See **NORD** and **FRANKE**, 79, 27
- Frear, Donald E. H.** The adaptation of the Benedict-Denis method to the determination of sulfur in plants, 86, 285
- . A method for the estimation of the acid-base balance in the ash of plants, 88, 675
- and **Kahlenberg, O. J.** A study of the accuracy of the McCrudden method for calcium and magnesium in biological materials, 100, 85
- Fred, E. B.** See **STILES**, **PETERSON**, and **FRED**, 84, 437
- . See **HOPKINS**, **PETERSON**, and **FRED**, 85, 21
- . See **PRUESS**, **PETERSON**, **STEENBOCK**, and **FRED**, 90, 369
- . See **JOHNSON**, **PETERSON**, and **FRED**, 91, 569
- . See **PRUESS**, **PETERSON**, and **FRED**, 97, 483

Fred, E. B.—*continued.*

— See PETERSON, GORCICA, and
FRED, 100, lxxviii

**Freeman, Benjamin, Livingston,
A. E., and Richards, A. N.** A
second series of quantitative
estimations of the concentra-
tion of chlorides in glomerular
urine from frogs, 87, 467

Freireich, A. Walter. See GETT-
LER and FREIREICH,
92, 199

Fremont-Smith, Frank. See DAI-
LEY, FREMONT-SMITH, and CAR-
ROLL, 93, 17

**Freudenberg, Werner, and Cere-
cedo, Leopold R.** Studies on
the antineuritic vitamin. I.
On the use of albino mice as
test animals for determining
the potency of antineuritic con-
centrates, 94, 207

— The preparation of sarco-
lactic acid, 99, 153

— Studies on carbohydrate me-
tabolism. I. The influence of
d-glucal and its derivatives, *d*-
hydroglucal and *d*-2-glucodes-
ose, on blood sugar, 99, 647

— and Felton, George E. Stud-
ies on carbohydrate metab-
olism. II. The rate of metab-
olism of *d*-2-oxyglucal and
styracitol in the rabbit,
99, 657

Frey, Charles N. See LIGHT,
MILLER, and FREY,
84, 487

— See LIGHT, MILLER, and
FREY, 92, 47

— See HESS, LIGHT, FREY, and
GROSS, 97, 369

**Freytag, Frederick C., and Smith,
H. Gregg.** The unsaponifiable
constituents of the liver lipids,
92, xcii

— and —. The unsaponifiable
lipids of beef liver, 97, xxxviii

— and —. The unsaponifiable
lipids of beef liver. I. Meth-
ods of separation; crystalline
fractions, 100, 309

— and —. II. Vitamins A and
E; antioxygens, 100, 319

Friedemann, Theodore E. On
the determination of lactic acid
in sugar solutions decomposed
by alkali, 76, 75

— Fasting ketosis of the pri-
mates, 78, lxi

— See KENDALL and FRIEDE-
MANN, 78, lxi

— and Kendall, Arthur I. The
determination of lactic acid,
82, 23

— and —. The determination of
carbon and carbon dioxide,
82, 45

— See SHAFFER and FRIEDE-
MANN, 86, 345

— and Graeser, James B. The
determination of lactic acid,
100, 291

**Friedenson, Myer, Rosenbaum,
M. K., Thalheimer, E. J., and
Peters, John P.** Cutaneous
and venous blood sugar curves.
I. In normal individuals after
insulin and in liver disease,
80, 269

Friedheim, E. See MICHAELIS
and FRIEDHEIM, 91, 343

— and Michaelis, L. Potentio-
metric study of pyocyanine,
91, 355

- Friedman, Joseph S.** See **HEIDELBERGER, ROSENTHAL, COHN, and FRIEDMAN**, 78, lxi
- Frisch, R. A., Mendel, Lafayette B., and Peters, John P.** The production of edema and serum protein deficiency in white rats by low protein diets, 84, 167
- Fry, Edith G.** See **WOODWARD and FRY**, 97, 465
- See **BANCROFT and FRY**, 100, 255
- Funk, Casimir, and Harrow, Benjamin.** The male hormone, 92, lxx
- and —. The male hormone. V. The effect of the male hormone and the anterior pituitary, 97, cvii
- Further experiments on the fat metabolism hormone obtained from normal urine, 100, xliii
- See **HARROW, NAIMAN, and FUNK**, 100, lii
- Gaebler, Oliver Henry, and Keltch, Anna K.** On the nature of blood creatinine, 76, 337
- Animal calorimetry. XXXVIII. The specific dynamic action of meat in hypophysectomized dogs, 81, 41
- See **BREH and GAEBLER**, 87, 81
- Further studies of blood creatinine, 89, 451
- Experiments on the diffusibility of plasma proteins, 92, xliii
- Diffusibility of the proteins of normal and pathological plasma, 93, 467
- The effect of anterior pituitary extracts on the nitrogen balance and urine volume of dogs, 97, li
- The effect of anticoagulants on determinations of inorganic phosphate and protein in plasma, 99, 99
- Further studies of anterior pituitary extracts, 100, xlvi
- Gallagher, T. F., and Koch, Fred C.** The testicular hormone, 84, 495
- , **Domm, L. V., and Koch, Fred C.** The problem of hen-feathering in Sebright cocks, 100, xlvii
- and **Koch, Fred C.** Effect of alkali on the comb growth-stimulating male hormone, 100, xlvii
- and —. Studies on the testicular hormone from human urine, 100, xlviii
- and —. Technique and accuracy of the testicular hormone assay, 100, xlviii
- Gallup, Willis D.** The digestibility of the proteins of some cottonseed products, 76, 43
- The value of iron salts in counteracting the toxic effects of gossypol, 77, 437
- A note on the determination of the digestibility of protein by Bergheim's method, 81, 321

Gallup, Willis D.—*continued.*

— . Concerning the use of cottonseed meal in the diet of the rat, 91, 387

— . Studies on the toxicity of gossypol. I. The response of rats to gossypol administration during avitaminosis,

93, 381

— and Reder, Ruth. Studies on the toxicity of gossypol. II. The effect of gossypol upon the apparent digestibility of protein, fat, and carbohydrate and upon the absorption of glucose from the gastrointestinal tract of the rat, 94, 221

Gamble, James L., McKhann, C. F., and Butler, Allan M. An economy of water in renal function referable to urea,

97, lvii

Garrison, E. Alta. See MORGAN and GARRISON, 85, 687

92, xciv

Gavin, Gertrude. See MCHENRY and GAVIN, 92, lxxv

Geddes, W. F., and Hunter, Andrew. Observations upon the enzyme asparaginase,

77, 197

Geisinger, Helen H. See CORBET, GEISINGER, and HOLMES, 100, 657

Geraghty, Gladys B., Underhill, F. Aline, Orten, James M., and Lewis, Robert C. The use of metal cages in the study of nutritional anemia, 99, 451

Gerber, Louis P., Nielsen, Ernst K., and Corley, Ralph C. The differential metabolism of the amino acids, 100, xlix

Gersdorff, Charles E. F. See JONES and GERSDORFF,

81, 533

93, 119

100, lviii

Gerwe, E. G. Studies on the spontaneous oxidation of cysteine. I. The preparation of iron-free cystine and cysteine hydrochlorides, 91, 57

— . II. The autoxidation of cysteine free from iron, 92, 399

— . III. The method of action of cyanides and cystine on cysteine oxidation, 92, 525

Getchell, R. W., and Walton, James H. Some factors influencing the activity of peroxidase, 91, 419

Gettler, Alexander O., and Freireich, A. Walter. Determination of alcoholic intoxication during life by spinal fluid analysis, 92, 199

Gibson, R. B. See CLARK and GIBSON, 100, 205

Gildea, Edwin F. See MAN and GILDEA, 99, 43, 61

Gilman, Alfred, and Cowgill, George R. The determination of peptic activity: an examination and application of the Gates method of proteolytic enzyme titration, 88, 743

Gilman, Elizabeth. See FENWICK and GILMAN, 84, 605

Glaister, D. See SCOTT and GLAISTER, 84, 475

Glaser, Jerome. See RONZONI, GLASER, and BARR, 80, 309

— . See BARR, RONZONI, and GLASER, 80, 331

- Glick, David, and King, C. G.** Relationships between the structure of saturated aliphatic alcohols and their inhibiting effect upon liver esterase, 94, 497
- and —. Relationships between the structure of organic compounds and their inhibiting effect upon liver esterase. Resemblance to a lyotropic series of anions, 95, 477
- . Relationships between the constitution of organic compounds and their effects upon esterase and lipase, 97, lxxvii
- and **King, C. G.** Relationships between the activation of pancreatic lipase and the surface effects of the compounds involved. The mechanism of inhibition and activation, 97, 675
- Glusker, David.** Plasma lipid levels in normal dogs in the postabsorptive state and in fasting dogs, 88, 381
- Goddard, Verz R., and Mendel, Lafayette B.** Plant hemagglutinins with special reference to a preparation from the navy bean, 82, 447
- Goebel, Walther F.** See **BABERS** and **GOEBEL**, 89, 387
- . The preparation of the type-specific polysaccharides of pneumococcus, 89, 395
- and **Babers, Frank H.** Derivatives of glucuronic acid. I. The preparation of glucuronic acid from glucuron and a comparison of their reducing values, 100, 573
- and —. II. The acetylation of glucuron, 100, 743
- Goettsch, Marianne, and Brown, Elizabeth F.** Muscle creatine in nutritional muscular dystrophy of the rabbit, 97, 549
- Goldblatt, Harry.** See **BEARD, BURK, THOMPSON, and GOLDBLATT**, 96, 307
- Goldfarb, W.** See **HIMWICH, GOLDFARB, and WELLER**, 93, 337
- Good, C. A., Kramer, H., and Somogyi, Michael.** The determination of glycogen, 100, 485
- Gorcica, H. J.** See **PETERSON, GORCICA, and FRED**, 100, lxxviii
- Gortner, Ross Aiken, and Sinclair, Walton B.** Sulfur in proteins. IV. The effect of alkalies upon cystine, 83, 681
- . See **ZELNY and GORTNER**, 90, 427
- . See **WILKERSON and GORTNER**, 97, lxi
- . See **THOR and GORTNER**, 99, 383
- Goss, Harold, and Schmidt, Carl L. A.** Calcium and phosphorus metabolism in rats during pregnancy and lactation and the influence of the reaction of the diet thereon, 86, 417
- Gottschall, Gertrude.** See **BENEDICT and GOTTSCHALL**, 99, 729
- Graeser, James B.** See **FRIEDEMANN and GRAESER**, 100, 291

- Graham, Claire E., and Griffith, Wendell H. Dietary factors affecting the appetite and growth of rats, 92, lxiii
- See GRIFFITH and GRAHAM, 97, vii
- Grant, Gordon A. See YOUNG and GRANT, 93, 805
- See HARDING and GRANT, 94, 529
- See HARDING, NICHOLSON, and GRANT, 99, 625
- See HARDING and GRANT, 99, 629
- Grant, Rhoda. See LONG and GRANT, 87, lviii
- 89, 553
- Grave, Thomas B. See JACOBS, ELDERFIELD, GRAVE, and WIGNALL, 91, 617
- See JACOBS, ELDERFIELD, HOFFMANN, and GRAVE, 93, 127
- Gray, I. E. See HALL and GRAY, 81, 589
- See ROOT, HALL, and GRAY, 91, 27
- Gray, Samuel H. The blood cholesterol following repeated administrations of chloroform, paraldehyde, and urethane, 87, 591
- Grayzel, David M., and Miller, Edgar G., Jr. The pH of the contents of the gastrointestinal tract in dogs, in relation to diet and rickets, 76, 423
- Green, Arda Alden. See COHN and GREEN, 78, xxxii
- See FERRY and GREEN, 81, 175
- Studies in the physical chemistry of the proteins. VIII. The solubility of hemoglobin in concentrated salt solutions. A study of the salting out of proteins, 93, 495
- IX. The effect of electrolytes on the solubility of hemoglobin in solutions of varying hydrogen ion activity with a note on the comparable behavior of casein, 93, 517
- X. The solubility of hemoglobin in solutions of chlorides and sulfates of varying concentration, 95, 47
- and Talbott, J. H. The effect of electrolytes on the oxygen-hemoglobin equilibrium, 100, 1
- Green, David E. See MORGULIS and GREEN, 92, xcv
- Greenberg, David M., and Ballard, Herman E. A comparison of the diffusible calcium of the serum and the calcium of the spinal fluid, 78, lxxv
- The transport numbers of fibrin in solutions of dilute acids and alkalies, 78, 265
- The electrical transference of calcium in blood serum protein solutions, 79, 177
- The colorimetric determination of the serum proteins, 82, 545
- See GUNTHER and GREENBERG, 82, 551
- and Gunther, Lewis. On the determination of diffusible and non-diffusible serum calcium, 85, 491
- See BURK and GREENBERG, 87, 197

- See ALMQUIST and GREENBERG, 93, 167
- and Greenberg, Max. Ultrafiltration. I. Ultrafiltration of electrolytes from alkali caseinate solutions, 94, 373
- and Mackey, Myrtle A. The determination of magnesium in blood with 8-hydroxyquinoline, 96, 419
- Ultrafiltration. II. Bound water (hydration) of biological colloids, 97, xlv
- and Greenberg, Louis D. Is there a compound of the nature of calcium citrate present in the blood? 97, ciii
- and Mackey, Myrtle A. The effect of parathyroid extract on blood magnesium, 98, 765
- and Greenberg, Louis D. Is there an unknown compound of the nature of calcium citrate present in the blood? 99, 1
- and Mackey, Myrtle A. The determination of magnesium in blood with 8-hydroxyquinoline. A reply, 99, 19
- , Lucia, Salvatore P., Mackey, Myrtle A., and Tufts, Elma V. The magnesium content of the plasma and the red corpuscles in human blood, 100, 139
- Greenberg, Louis D. See GREENBERG and GREENBERG, 97, ciii
99, 1
- Greenberg, Max. See GREENBERG and GREENBERG, 94, 373
- Greene, Carl H., and Snell, Albert M. Studies in the metabolism of the bile. II. The sequence of changes in the blood and bile following the intravenous injection of bile or its constituents, 78, 691
- , Aldrich, Martha, and Rown-tree, Leonard G. Studies in the metabolism of the bile. III. The enterohepatic circulation of the bile acids, 80, 753
- and Power, Marschelle H. The distribution of electrolytes between serum and the *in vivo* dialysate, 91, 183
- , Bollman, Jesse L., Keith, Norman M., and Wakefield, E. G. The distribution of electrolytes between serum and transudates, 91, 203
- See POWER and GREENE, 94, 281, 295
- Greenstein, Jesse P. Studies of the peptides of trivalent amino acids. I. Titration constants of histidyl-histidine and of aspartyl-aspartic acid, 93, 479
- II. Titration constants of tyrosyl-tyrosine and of glycyl-tyrosine, 95, 465
- The titration constants of α,β -diaminopropionic acid and their relation to the constants of various isomers, 96, 499
- Greenwald, Isidor. The chemistry of Jaffe's reaction for creatinine. IV. A compound of creatinine, picric acid, and sodium hydroxide, 77, 539
- and Gross, Joseph. Does the feeding of cod liver oil prevent tetany in thyroparathyroidectomized dogs? 78, lxviii

Greenwald, Isidor—*continued*.

- The chemistry of Jaffe's reaction for creatinine. V. The isolation of the red compound, 80, 103
- A note on ammonium creatinine picrate and its possible use in the preparation of creatinine, 81, 73
- and Gross, Joseph. The prevention of the tetany of parathyroidectomized dogs. I. Cod liver oil. With a note on the effect of cod liver oil on calcium assimilation, 82, 505
- and —. II. Lactose-containing diets, 82, 531
- The prevention of the tetany of parathyroidectomized dogs. III. Ammonium chloride, 82, 717
- Studies on metabolism in pneumonia. I. The excretion of "organic acid" and a method for its determination, 85, 447
- The chemistry of Jaffe's reaction for creatinine. VI. A compound of picric acid with two molecules of creatinine. Its combinations with acid and alkali, 86, 333
- and Levy, Irving. The preparation of lipid-free serum. Apparatus for extraction at low temperatures, 87, 281
- The nature of the sugar in four cases of pentosuria, 88, 1
- The nature of the sugar in four cases of pentosuria. A correction, 89, 501
- The possible significance of *l*-xyloketose (urine pentose) in normal metabolism, 91, 731
- The relation of the concentration of calcium to that of protein and inorganic phosphate in the serum, 93, 551
- and Levy, Irving. The nature of the "acid-soluble" phosphorus in plasma, 97, xci
- Greenwood, Mary L. See OKEY, STEWART, and GREENWOOD, 87, 91
- Gregg, D. E. See BARBOUR, GREGG, and HUNTER, 87, xlv
- Gregory, Raymond, and Pascoe, T. A. The quantitative determination of bile acids by means of a new color reaction and monochromatic light, 83, 35
- Grettie, Donald P., and King, C. G. The preparation and properties of vitamin C concentrates from lemon juice, 84, 771
- Griffith, Wendell H. Environmental and nutritional factors affecting the growth of rats on diets containing sodium benzoate, 78, xxiv
- Benzoylated amino acids in the animal organism. IV. A method for the investigation of the origin of glycine, 82, 415
- V. The synthesis of glycine and of hippuric acid in rats, 85, 751

- The relation between the intake of protein and the synthesis of glycine in rats, 87, xiii
- See GRAHAM and GRIFFITH, 92, lxiii
- and Graham, Claire E. The effect of vitamins B₁ and B₂ on the appetite and the utilization of food in rats, 97, vii
- The synthesis of hippuric acid in rats, 100, i
- Grollman, Arthur. The urine of the goosfish (*Lophius piscatorius*): its nitrogenous constituents with special reference to the presence in it of trimethylamine oxide, 81, 267
- The solubility of gases in blood and blood fluids, 82, 317
- and Firor, W. M. Studies on the adrenal. III. The preparation of an active extract of the hormone of the adrenal cortex, 100, 429
- Gross, Erwin G. See UNDERHILL and GROSS, 81, 163
- Gross, Joseph. See GREENWALD and GROSS, 78, lxviii
- 82, 505, 531
- See HESS, WEINSTOCK, RIVKIN, and GROSS, 87, 37
- See HESS, WEINSTOCK, BENJAMIN, and GROSS, 90, 737
- See HESS, BENJAMIN, and GROSS, 94, 1
- See HESS, LIGHT, FREY, and GROSS, 97, 369
- See HESS, GROSS, WEINSTOCK, and BERLINER, 98, 625
- Grote, Irvine W. See KAMM, GROTE, and ROWE, 92, lxix
- , Jones, Edward G., and Kamm, Oliver. The antidiuretic activity of posterior pituitary extracts. II. A comparative quantitative study of the effect upon mice and men, 92, xcv
- A new color reaction for soluble organic sulfur compounds, 93, 25
- See DU VIGNEAUD, SEALOCK, SIFFERD, KAMM, and GROTE, 100, xciv
- Groth, A. H. See SMITH, GROTH, and WHIPPLE, 80, 659
- Grove, E. W., Olmsted, W. H., and Koenig, Karl. The effect of diet and catharsis on the lower volatile fatty acids in the stools of normal men, 85, 127
- Guerrant, N. B. See SALMON, GUERRANT, and HAYS, 76, 487
- and Salmon, W. D. Some factors affecting the adsorption of quinine, oxalate, and glucose by fullers' earth and norit, 80, 67
- See SALMON, GUERRANT, and HAYS, 80, 91
- and Salmon, W. D. The stability of vitamin G as measured by its growth-stimulating effect, 89, 199
- and Dutcher, R. Adams. The assay of vitamins B and G as influenced by coprophagy, 98, 225
- Guest, George^o Martin. A pipette for the handling of whole blood samples, for use with the Van Slyke gasometric apparatus, 94, 507

Guest, George Martin—*continued*.

— and Warkany, Josef. Effects of overdosage of irradiated ergosterol in rabbits. Changes in the distribution of phosphorus in blood cells and plasma, 100, 445

Gulick, Margaret. See DEUEL, 89, 77

— See DEUEL and GULICK, 89, 93

— See DEUEL, GULICK, and BUTTS, 92, xxiii

— See DEUEL and GULICK, 96, 25

— See DEUEL, GULICK, and BUTTS, 98, 333

Gunderson, M. F. See SKINNER and GUNDERSON, 97, 53

Gunther, Lewis, and Greenberg, David M. A note on the determination of the inorganic phosphate of the serum on the filtrate from calcium analysis, 82, 551

— See GREENBERG and GUNTHER, 85, 491

Gurin, Samuel. See WILLIAMS, WATERMAN, and GURIN, 83, 321

— See EDDY, GURIN, and KERESZTESY, 87, 729

Gustavson, Reuben G. The occurrence of estrin in the feces of hens, 92, lxxi

Gustus, Edwin L. See JACOBS and GUSTUS, 79, 539, 553

— 82, 403

— 84, 183

— 86, 199

— 88, 531

— 92, 323

Gutman, Alexander B. See FOSTER and GUTMAN, 87, 289

—, Benedict, Ethel M., Baxter, Blanch, and Palmer, Walter W. The effect of administration of iodine on the total iodine, inorganic iodine, and thyroxine content of the pathological thyroid gland, 97, 303

Guyatt, B. L. See BRANION, GUYATT, and KAY, 92, xi

H

Haag, J. R., and Palmer, Leroy S.

The effect of variations in the proportions of calcium, magnesium, and phosphorus contained in the diet, 76, 367

Haber, E. S. See HOUSE, NELSON, and HABER, 81, 495

— See McLAUGHLIN, 84, 249

Hale, W. S. See TURNER, KANE, and HALE, 92, xiv

Hall, F. G. Blood concentration in marine fishes, 76, 623

— and Gray, I. E. The hemoglobin concentration of the blood of marine fishes, 81, 589

— See ROOT, HALL, and GRAY, 91, 27

Haller, H. L. See LEVENE and HALLER, 77, 555

— 79, 475

— 81, 425, 703

— 83, 177, 185, 579, 591

Halliday, Nellie. Effect of heat at varying concentrations of hydrogen ion on vitamin G (B₂) in protein-free milk, 95, 371

— Further evidence for the existence of a third vitamin B

- growth factor for the rat, probably vitamin B₄, 96, 479
- Effect of heat at varying concentrations of hydrogen ion on vitamin B (B₁) in protein-free milk, 98, 707
- Hallman, L. F. See **BODANSKY**, 99, 197
- Halpin, J. G. See **ELVEHJEM**, **KEMMERER**, **HART**, and **HALPIN**, 85, 89
- See **STEENBOCK**, **KLETZIEN**, and **HALPIN**, 97, 249
- Haman, R. W. See **STEENBOCK**, **KLETZIEN**, and **HALPIN**, 97, 249
- Hambleton, A. A Soxhlet type of extraction apparatus for operation at low temperatures under reduced pressure, 99, 289
- Hamburger, Morton, Jr. See **BARRON** and **HAMBURGER**, 96, 299
- Hamilton, Bengt, Kajdi, Laslo, and Meeker, Dorothy. The effect of phosphorus administration, antirachitic treatment, and spontaneous healing on the calcium in the serum of rachitic rabbits, 88, 331
- Hamilton, R. H., Jr. Studies on the Folin method of analysis for glucose in normal urine, 78, 63
- Hamilton, T. S. See **SMUTS**, **MITCHELL**, and **HAMILTON**, 95, 283
- Hand, David B. See **SUMNER** and **HAND**, 76, 149
- 78, xxxiv
- See **SUMNER**, **HAND**, and **HOLLOWAY**, 91, 333
- Hanford, Zaida M. See **SUPPLEE**, **HANFORD**, **DORCAS**, and **BECK**, 95, 687
- Hanke, Martin E., and Tuta, J. A. Studies on the oxidation-reduction potential of blood, 78, xxxvi
- Determination of the pH of whole blood as well as of serum with quinhydrone, 92, xlix
- See **VAN SLYKE** and **HANKE**, 95, 569, 587
- Hanke, Milton T. See **SEIBERT** and **HANKE**, 76, 535
- Determination of the tyrosine content of proteins, 79, 587
- and **Koessler, Karl K.** The effect of scurvy-producing diets and tyramine on the blood of guinea pigs, 80, 499
- Hanna, William Fielding, Vickery, Hubert Bradford, and Pucher, George W. The isolation of trimethylamine from spores of *Tilletia levis*, the stinking smut of wheat, 97, 351
- Hanning, Flora. See **STEENBOCK**, **HART**, **HANNING**, and **HUMPHREY**, 88, 197
- See **STEENBOCK**, **KLETZIEN**, and **HALPIN**, 97, 249
- Hannon, R. Roger. See **McCLELLAN**, **BIASOTTI**, and **HANNON**, 78, 719
- See **McCLELLAN** and **HANNON**, 95, 327
- Hansen, Louis O. See **WAKEHAM** and **HANSEN**, 97, 155
- Hansmann, G. H. See **BOOHER** and **HANSMANN**, 94, 195

- Hanzal, R. F., and Myers, Victor C.** The excretion of methyl uric acids after the ingestion of methylated xanthines, 97, lxix
- The determination of iron in biological material, 100, li
- Harding, T. Swann, and Cary, C. A.** Failure to recover cystine by common methods of removing protein from blood, 78, xlix
- Harding, Victor John, and Downs, C. E.** Blood sugar and amino acid nitrogen in lactation in women, with a note on lipid and inorganic phosphorus, 84, 335
- and **van Nostrand, Frederick H.** Variations in blood and urinary sugar after the ingestion of galactose, 85, 765
- and **Moberley, Olga.** Urinary galactose in men and women after the ingestion of galactose, 89, 535
- and **Grant, Gordon A.** The estimation of galactose in blood and urine, 94, 529
- , **Nicholson, Thomas Frederick, and Grant, Gordon A.** An alternative reagent for the estimation of galactose, 99, 625
- and **Grant, Gordon A.** Metabolism of galactose. I. Cutaneous blood sugars after galactose ingestion, 99, 629
- Harkins, Henry N., and Hastings, A. Baird.** A study of electrolyte equilibrium in the blood in experimental acidosis, 90, 565
- See **HASTINGS, HARKINS, and LIU,** 94, 681
- Harned, Ben K.** The catalytic oxidase-like action of methylene blue in sugar peroxidation, 78, lii
- See **SHAFFER and HARNED,** 93, 311
- and **Nash, Thomas P., Jr.** Protection of insulin by antitrypsin, 97, li
- and **Deere, Charles J.** More complete oxidation of sugars in alkaline solution in presence of cyanide, 97, lxxxii
- and **Nash, Thomas P., Jr.** The protection of insulin by antiproteases, and its absorption from the intestine, 97, 443
- Harnes, Alvin R.** The colorimetric determination of lipid phosphorus in blood, 77, 405
- Harris, Leslie J.** Note on the dissociation constants of certain amino acids, including valine, glutamic acid, 84, 179
- See **HOPKINS,** 84, 269
- Harris, Meyer M.** See **BRAND, HARRIS, and BILOON,** 86, 315
- See **BRAND, HARRIS, SANDBERG, and LASKER,** 87, ix
- See **BRAND and HARRIS,** 92, lix
- 97, lxii
- 100, xx
- Harris, Stanton A.** See **LEVENE and HARRIS,** 95, 755
- 98, 9

- Harrison, E. P. H., Jr.** See **STANDER, EASTMAN, HARRISON, and CADDEN,** 85, 233
- Harrison, E. S.** See **MAYNARD, HARRISON, and McCAY,** 92, 263
- Harrison, T. R.** See **CULLEN, HARRISON, CALHOUN, WILKINS, and PILCHER,** 92, iv
- Harrop, George A., Jr.** See **BARRON and HARROP,** 79, 65
84, 89
- See **BARRON, HARROP, PERLZWEIG, and PIERCE,** 87, xxv
- , **Swingle, W. W., and Piffner, J. J.** Metabolism studies on the adrenal cortical hormone, 92, lvi
- Harrow, Benjamin.** See **FUNK and HARROW,** 92, lxx
97, cviii
- , **Naiman, Barnet, and Funk, Casimir.** The male hormone. VI. Further experiments on the effect of the male hormone and the anterior pituitary, 100, lii
- Hart, E. B.** See **TITUS, SOMMER, and HART,** 76, 237
- See **WADDELL, STEENBOCK, ELVEHJEM, and HART,** 77, 769
- See **WADDELL, ELVEHJEM, STEENBOCK, and HART,** 77, 777
- , **Steenbock, H., Waddell, J., and Elvehjem, C. A.** Iron in nutrition. VII. Copper as a supplement to iron for hemoglobin building in the rat, 77, 797
- See **ELVEHJEM and HART,** 82, 473
- See **ELVEHJEM, STEENBOCK, and HART,** 83, 21, 27
- See **WADDELL, STEENBOCK, and HART,** 83, 243
- See **WADDELL, STEENBOCK, ELVEHJEM, and HART,** 83, 251
- See **WADDELL, STEENBOCK, and HART,** 84, 115
- See **ELVEHJEM and HART,** 84, 131
- , **Steenbock, H., Teut, E. C., and Humphrey, G. C.** Dietary factors influencing calcium assimilation. XI. The influence of cod liver oil upon calcium metabolism of milking cows, 84, 359
- , —, —, and —. XII. A study of the influence of hays cured with varying exposure to sunlight on the calcium metabolism of milking cows, 84, 367
- See **ELVEHJEM, KEMMERER, HART, and HALPIN,** 85, 89
- , **Steenbock, H., Kline, O. L., and Humphrey, G. C.** Dietary factors influencing calcium assimilation. XIII. The influence of irradiated yeast on the calcium and phosphorus metabolism of milking cows, 86, 145
- See **STEENBOCK, HART, RISING, HOPPERT, BASHEROV, and HUMPHREY,** 87, 103
- See **STEENBOCK, HART, RISING, KLETZIEN, and SCOTT,** 87, 127

Hart, E. B.—*continued.*

- See STEENBOCK, HART, HANNING, and HUMPHREY, 88, 197
- See ELVEHJEM and HART, 91, 37
- See KEMMERER, ELVEHJEM, and HART, 92, 623
- See ELVEHJEM, STEENBOCK, and HART, 93, 197
- See ELVEHJEM and HART, 95, 363
- See KLINE, SCHULTZE, and HART, 97, 83
- See KLINE, KEENAN, ELVEHJEM, and HART, 98, 121
99, 295
- See ELVEHJEM, KLINE, KEENAN, and HART, 99, 309
- See KOZELKA, HART, and VOHSTEDT, 100, 715
- Hart, G. W.** See MORRELL, VARLEY, HART, and SCHWOCH, 78, lxxviii
- Hart, Merrill C., Tourtellotte, Dee, and Heyl, Frederick W.** The effect of irradiation and cod liver oil on the calcium balance in the adult human, 76, 143
- See SPEER, WISE, and HART, 82, 105
- and Heyl, Frederick W. Spinasterol and some of its esters, 95, 311
- Hartley, J. G.** See QUINN, HARTLEY, and DEROW, 89, 657
- See QUINN and HARTLEY, 91, 633
- Hartman, Arthur M.** See TURNER and HARTMAN, 78, xxvii
- The vitamin A content of different grades of alfalfa and timothy hays and of hays cured under various conditions, 92, vii
- Harvey, E. Newton.** Studies on the oxidation of luciferin without luciferase and the mechanism of bioluminescence, 78, 369
- Hastings, A. Baird, and van Dyke, H. B.** Studies of the bromide and chloride distribution in the blood of dogs and the production of experimental edema by sodium bromide administration, 78, xxxv
- See SENDROY and HASTINGS, 78, lxxvii
- See VAN SLYKE, SENDROY, HASTINGS, and NEILL, 78, 765
- , Sendroy, Julius, Jr., and Van Slyke, Donald D. Studies of gas and electrolyte equilibria in blood. XII. The value of pK' in the Henderson-Hasselbalch equation for blood serum, 79, 183
- , —, McIntosh, John F., and Van Slyke, Donald D. Studies of gas and electrolyte equilibria in blood. XIII. The distribution of chloride and bicarbonate in the blood of normal and pathological human subjects, 79, 193
- See VAN SLYKE, HASTINGS, HILLER, and SENDROY, 79, 769
- See SENDROY and HASTINGS, 82, 197

- See ROSEBERRY, HASTINGS, and MORSE, 90, 395
- See HARKINS and HASTINGS, 90, 565
- and van Dyke, H. B. Studies of bromide distribution in the blood. I. *In vitro* experiments of bromide and chloride distributions, 92, 13
- See VAN DYKE and HASTINGS, 92, 27
- See AVERY and HASTINGS, 94, 273
- See BOGERT and HASTINGS, 94, 473
- , Harkins, Henry N., and Liu, S. K. Blood and urine studies following bromide injection, 94, 681
- and Shock, N. W. Acid-base paths in humans, 97, lx
- See BARRON and HASTINGS, 97, lxxiii
- 100, 155, xi
- See SCHLUTZ, HASTINGS, and MORSE, 100, lxxxv
- Hauge, Sigfred M., and Trost, John F. An inheritance study of the distribution of vitamin A in maize, 80, 107
- An inheritance study of the distribution of vitamin A in maize. II. Vitamin A in hybrid red maize, 86, 161
- and Trost, John F. An inheritance study of the distribution of vitamin A in maize. III. Vitamin A content in relation to yellow endosperm, 86, 167
- and Aitkenhead, William. The effect of artificial drying upon the vitamin A content of alfalfa, 93, 657
- Haury, Victor G. The calcium content of striated muscle of rachitic animals, 89, 467
- Hawes, Effie Ross. See STADIE and HAWES, 77, 241, 265
- 78, xxix
- Hawk, Philip B. The sex variations of the livers and the liver oil of the Norwegian cod, 87, xlvi
- 87, xlvi
- Hawkins, James A., MacKay, Eaton M., and Van Slyke, Donald D. Glucose in the urine of normal and nephritic subjects, 78, xxiii
- See VAN SLYKE and HAWKINS, 79, 739
- and Van Slyke, Donald D. A time method for determination of reducing sugars, and its application to analysis of blood and urine, 81, 459
- See VAN SLYKE and HAWKINS, 83, 51
- A micro time method for determination of reducing sugars, and its application to analysis of blood and urine, 84, 69
- Reducing powers of different sugars for the ferricyanide reagent used in the gasometric sugar method, 84, 79
- and Van Slyke, Donald D. Comparison of rates of sugar disappearance and carbon dioxide formation during fermentation of glucose, 84, 243
- See VAN SLYKE and HAWKINS, 87, 265
- Hawks, Jean E. See WANG and HAWKS, 87, v

- Hays, I. M.** See SALMON, GUER-
RANT, and HAYS, 76, 487
80, 91
- Healy, D. J.** See MCHARGUE,
HEALY, and HILL, 78, 637
- Heidelberger, Michael, Rosen-
thal, Nathan, Cohn, David J.,
and Friedman, Joseph S.** Be-
havior of the substance active
in pernicious anemia on dialy-
sis of liver extracts, 78, lxvi
- , Shwartzman, Gregory, and
Cohn, David J. Immunolo-
gical relationships of the ty-
phoid bacillus, 78, lxxvi
- See JACOBS and HEIDELBER-
GER, 81, 765
- and Kendall, Forrest E. A
crystalline aldobionic acid de-
rived from gum arabic, 84, 639
- and —. Some physicochemi-
cal properties of specific poly-
saccharides, 95, 127
- and —. The molecular weight
of specific polysaccharides,
96, 541
- Heinbecker, Peter.** Studies on
the metabolism of Eskimos,
80, 461
- Further studies on the me-
tabolism of Eskimos, 93, 327
- Ketosis during fasting in
Eskimos, 99, 279
- Heim, J. W.** See FAIRHALL and
HEIM, 97, xciii
- Heki, Mutsuo.** See OSATO and
HEKI, 87, 541
- Heller, V. G.** Vitamin synthe-
sis in plants as affected by
light source, 76, 499
- , Breedlove, C. H., and Likely,
W. A comparison of the Ber-
geim and standard methods of
determining coefficients of util-
ization with suggested modifi-
cations, 79, 275
- See ST. JULIAN and HELLER,
90, 99
- , Hunter, K. R., and Thomp-
son, R. B. Phosphorus dis-
tribution in chicken blood as
affected by the diet, 97, 127
- Hellwig, Arthur.** See QUAM and
HELLWIG, 78, 681
- Helmer, O. M., Fouts, Paul J.,
and Zervas, L. G.** Pancreatic
enzymes in pernicious anemia,
100, liii
- Helming, Oscar C.** See ROSE,
ELLIS, and HELMING, 77, 171
- Hemingway, Allan, and McClen-
don, J. F.** Electrical conduc-
tivity of human tissues for
alternating currents of one
million cycles per second,
97, xcix
- Hemphill, Martha.** See MORGU-
LIS and HEMPHILL, 96, 573
- Henderson, L. J.** See DILL, BOCK,
VAN CAULAERT, FÖLLING,
HURXTHAL, and HENDERSON,
78, 191
- See TALBOTT, FÖLLING,
HENDERSON, DILL, EDWARDS,
and BERGGREN, 78, 445
- See DILL, BOCK, LAWRENCE,
TALBOTT, and HENDERSON,
81, 551
- , Bock, A. V., Dill, D. B., and
Edwards, H. T. Blood as a
physicochemical system. IX.
The carbon dioxide dissociation

- curves of oxygenated human blood, 87, 181
- See FLORKIN, EDWARDS, DILL, and HENDERSON, 87, xxv
- , DILL, D. B., EDWARDS, H. T., and MORGAN, WILLIAM O. P. Blood as a physicochemical system. X. The physicochemical properties of oxygenated human blood, 90, 697
- See TALBOTT, HENDERSON, EDWARDS, and DILL, 97, xl
- See MARGARIA, EDWARDS, HENDERSON, and DILL, 100, lxv
- Hendricks, Sterling B. See MARKLEY, HENDRICKS, and SANDO, 98, 103
- Hendrix, Byron M. The resorption of copper and ferrocyanide ions by coagulated proteins, 78, 653
- and Wilson, Velma. A comparison of the titration curves of coagulated and uncoagulated egg albumin, 79, 389
- See FAY and HENDRIX, 93, 667
- and Bernardoni, Bernard. The distribution of carbon dioxide between solutions of sodium bicarbonate and cottonseed oil, 97, xcv
- Henriques, O. M. On the carbon dioxide compounds in hemoglobin solutions, 92, 1
- Hepburn, Joseph S. See EBERHARD, RICKETTS, RIEGER, and HEPBURN, 92, lxxxviii
- , Eberhard, Harry M., Ricketts, Rowland, and Rieger, Charles L. W. Gastrointestinal temperature studies, 97, xliii
- Herr, Elizabeth F. See WRIGHT, HERR, and PAUL, 80, 571
- Herrick, Horace T., and May, Orville E. The production of gluconic acid by the *Penicillium luteum-purpureogenum* group. II. Some optimal conditions for acid formation, 77, 185
- Herron, William F., and McElroy, William S. Autolysis as a method for the preparation of therapeutically active substances in tissues, 100, liii
- Hess, Alfred F., Weinstock, Mildred, Rivkin, H., and Gross, Joseph. The lack of relationship between the development and cure of rickets and the inorganic phosphorus concentration of the blood, 87, 37
- , —, Benjamin, Helen Rivkin, and Gross, Joseph. The induction of tetany in rachitic rats by means of a normal diet, 90, 737
- See SUPPLEE, FLANIGAN, KAHLENBERG, and HESS, 91, 773
- , Benjamin, Helen Rivkin, and Gross, Joseph. The source of excess calcium in hypercalcemia induced by irradiated ergosterol, 94, 1
- , Berliner, Frieda S., and Weinstock, Mildred. An investigation of the comparative ash content of the metaphyses and shafts of bones, 94, 9
- See SUPPLEE, DORCAS, and HESS, 94, 749

Hess, Alfred F.—*continued.*

—, Light, Robert F., Frey, Charles N., and Gross, Joseph. A study of the milk, blood, and excreta of cows fed moderate and excessive amounts of irradiated yeast or ergosterol,

97, 369

—, Gross, Joseph, Weinstock, Mildred, and Berliner, Frieda S. The calcium and phosphorus content of the brain in experimental rickets and tetany,

98, 625

—, See BENJAMIN and HESS,

100, 27

Hess, W. C. See SULLIVAN, HESS, and CHASE,

87, xxiv

—, See SULLIVAN, HESS, and SEBRELL,

92, lxxvii

—, See SULLIVAN and HESS,

97, xxv

— and Sullivan, M. X. The o-benzoquinone test for cysteine,

99, 95

—, The gasometric method for the estimation of cysteine and cystine,

100, liv

Heyl, Frederick W. See HART, TOURTELLOTTE, and HEYL,

76, 143

—, Wise, Edwin C., and Speer, John H. The unsaponifiable fraction from spinach fat,

82, 111

—, See CARTLAND, HEYL, and NEUPERT,

85, 539

—, See HART and HEYL,

95, 311

Hicks, Joseph S. See RISING, HICKS, and MOERKE,

89, 1

Hill, Edgar S. See McHARGUE, HEALY, and HILL,

78, 637

—, The spontaneous oxidation of dialuric acid,

85, 713

—, The effect of iron and cyanides on the spontaneous oxidation of dialuric acid,

92, 471

—, The spontaneous oxidation of dialuric acid. III. The oxidation of amino acids by dialuric acid,

95, 197

Hill, Eleanor M., Long, C. N. H., and Slight, David. Plasma fats in some cases of mental depression,

92, lxxxi

Hill, Elsie. See BISCHOFF, ULLMANN, HILL, and LONG,

85, 675

—, See BISCHOFF, LONG, and HILL,

87, liv

90, 321

—, See BISCHOFF, MAXWELL, and HILL,

90, 331

—, See KOEHLER, BISCHOFF, and HILL,

92, li

— and Koehler, Alfred E. The effect of epinephrine on lipid excretion,

98, 185

Hill, Robert M. The effect of the administration of creatine on the blood sugar,

78, iv

— and Mattison, Inez H. Studies on creatine. I. The effect of creatine on the blood sugar,

82, 679

—, See PEABODY and HILL,

82, 687

—, The determination of colloid osmotic pressures in small quantities of fluid,

99, 323

Hiller, Alma. See VAN SLYKE and HILLER,

78, 807

- See VAN SLYKE, HASTINGS, HILLER, and SENDROY, 79, 769
- See VAN SLYKE and HILLER, 84, 205, 211
- Identification of reducing substances in nephritic urine, 91, 735
- Hiller, Veda Ellen. See HALLIDAY, 98, 707
- Himwich, Harold E., Koskoff, Y. D., and Nahum, L. H. Studies in carbohydrate metabolism. I. A glucose-lactic acid cycle involving muscle and liver, 85, 571
- , Chambers, William H., Koskoff, Y. D., and Nahum, L. H. Studies in carbohydrate metabolism. II. Glucose-lactic acid cycle in diabetes, 90, 417
- , Goldfarb, W., and Weller, A. The effect of various organs on the acetone content of the blood in phlorhizin and pancreatic diabetes, 93, 337
- Hitchcock, David I. The isoelectric point of a standard gelatin preparation, 92, xlii
- Hoagland, Charles L. See WEST, CURTIS, and HOAGLAND, 100, cii
- Hodes, Horace L. See JONES, RAPOPORT, and HODES, 86, 267
89, 647
- Hoelzel, Frederick. The Bergeim test for intestinal putrefaction, 83, 331
- Hoffman, William S. See JACOBS and HOFFMAN, 93, 685
- The microdetermination of fixed bases, calcium, and sulfates in urine, 93, 787
- Hoffmann, Alexander. See JACOBS and HOFFMANN, 79, 519, 531
- See JACOBS, ELDERFIELD, HOFFMANN, and GRAVE, 93, 127
- Hogan, Albert G., Hunter, Jesse E., and Kempster, Harry L. Acceleration of growth rates by dietary modifications, 77, 431
- and —. The action of ultra-violet rays on vitamin B, 78, xvii
- and —. The plural nature of vitamin B, 78, 433
- , Shrewsbury, Charles L., and Breckenridge, Gerald F. Destruction of vitamin A by radioactive materials, 87, xlii
- and Richardson, Luther R. The effect of ultra-violet rays on the dermatitis-preventing vitamin, 97, vii
- and —. Effect of ultra-violet irradiation on the vitamin B complex, 100, lv
- Hogden, Corinne. See WANG, HOGDEN, KAUCHER, and WING, 100, xcix
- Hollander, Franklin, and Cowgill, George R. Studies in gastric secretion. I. Gastric juice of constant acidity, 91, 151
- Studies in gastric secretion. II. A comparison of criteria of acidity used in this investigation, 91, 481
- The composition of gastric juice as a function of its acidity. Some properties of the parietal secretion, 97, xli

Hollander, Franklin—*continued*.

—. Studies in gastric secretion.

IV. Variations in the chlorine content of gastric juice and their significance, 97, 585

Hollander, Leonore, and du Vigneaud, Vincent. The resolution of inactive cystine and isolation of pure dextrorotatory cystine, 94, 243**Holloway, Rachel G.** See SUMNER and HOLLOWAY, 79, 489

—. See SUMNER, HAND, and HOLLOWAY, 91, 333

Holly, Olive M. See SANDBERG and HOLLY, 96, 443
97, 31
99, 547**Holmes, Arthur D., Pigott, Madeleine G., and Campbell, Percy A.** The calcium-phosphorus ratio of the tibix of growing chicks, 92, 187

— and Tripp, Francis. Factors which influence the effectiveness of a rachitogenic ration, 97, ix

Holmes, Harry N., Lava, Vicente G., Delfs, Eleanor, and Cassidy, Harold G. Comparative studies on the adsorption behavior of crude vitamin A, carotene, and cholesterol, 99, 417

—. See CORBET, GEISINGER, and HOLMES, 100, 657

Holst, James E. See KENDALL and HOLST, 91, 435**Honeywell, Edna M.** See BILLS, HONEYWELL, and MACNAIR, 76, 251

—. See BILLS and HONEYWELL, 80, 15

—. See BILLS, HONEYWELL, and COX, 80, 557

—. See BILLS, HONEYWELL, WIRICK, and NUSSMEIER, 90, 619

—. See BILLS, HONEYWELL, and COX, 92, 601

— and Bills, Charles E. Cerevisterol, a sterol accompanying ergosterol in yeast, 97, xxxix
99, 71**Honeywell, Hannah E.** See BECEDEL, HONEYWELL, DUTCHER, and KNUTSEN, 80, 231

—. See ANDERSON, HONEYWELL, SANTY, and PEDERSEN, 86, 157

Hooker, Sanford B., and Boyd, William C. The alleged transformation of serum albumin into serum globulins, 100, 187**Hooper, C. W.** See DUBIN and HOOPER, 97, v**Hopkins, E. W., Peterson, W. H., and Fred, E. B.** The composition of the cells of certain bacteria with special reference to their carbon and their nitrogen content, 85, 21**Hopkins, Frederick Gowland.** On glutathione: a reinvestigation, 84, 269**Hoppert, C. A.** See STEENBOCK, HART, RISING, HOPPERT, BASHEROV, and HUMPHREY, 87, 103

- Horn, Millard J. See CSONKA,
HORN, and JONES, 87, xviii
89, 267
- See CSONKA and HORN,
93, 677
- Horsfall, F. L., Jr. See LONG and
HORSFALL, 95, 715
- Hoskins, W. M., Randall, Merle,
and Schmidt, Carl L. A. The
conductance and activity coef-
ficients of glutamic and aspar-
tic acids and their monosodium
salts, 88, 215
- House, Margaret C., Nelson, P.
Mabel, and Haber, E. S. The
vitamin A, B, and C content
of artificially *versus* naturally
ripened tomatoes, 81, 495
- Howard, C. H. See RUSSELL,
MASSENGALE, and HOWARD,
78, xxi
80, 155
- See RUSSELL and HOWARD,
91, 493
- Howe, H. E. See LINDOW, ELVE-
HJEM, and PETERSON,
82, 465
- See ELVEHJEM and HART,
82, 473
- Howe, Marion. See WEST and
HOWE, 88, 427
94, 611
- Howell, Stacey F. * See SUMNER,
KIRK, and HOWELL,
98, 543
- Hrubetz, M. Caroline. See
STIMSON and HRUBETZ,
78, 413
- Hubbard, Roger S., and Deegan,
John K. Experiments with
the non-glucose sugar of blood
and plasma, 78, lvii
- The reaction of the morning
urine, 84, 191
- and Steele, T. Murray. Varia-
tions in the morning alkaline
tide of normal individuals,
84, 199
- and Deegan, John K. Note
on the action of the colon bacil-
lus upon the non-glucose reduc-
ing substances in human blood,
86, 575
- The excretion of chloride in
achlorhydria, 88, 361
- The determination of inor-
ganic sulfate in serum,
88, 663
- and Allison, Catherine B. An
apparent effect of normal varia-
tions in the respiratory rate
upon the excretion of chloride
and water, 89, 627
- , Munford, Samuel A., Tyner,
James, and Allison, Catherine
B. The alkalinity and phos-
phate content of the morning
urine, 92, xxix
- Note on the precipitation of
small amounts of potassium as
potassium sodium cobaltini-
trite, 100, 557
- Hudson, C. S. See LA FORGE
and HUDSON, 79, 1
- Huffman, C. F. See ROBINSON,
HUFFMAN, and MASON,
84, 257
- Huffman, Hugh M. See BOR-
SOOK and HUFFMAN,
99, 663
- Hufnagel, C. F. See CARY and
HUFNAGEL, 97, xxxii
- Hughes, J. S. See TITUS, CAVE,
and HUGHES, 80, 565

Hughes, J. S.—*continued.*

— See **TITUS** and **HUGHES**,
83, 463

Humoller, Fred L. See **AUSTIN**
and **HUMOLLER**, 100, x

Humphrey, G. C. See **HART**,
STEENBOCK, **TEUT**, and **HUM-**
PHREY, 84, 359, 367

— See **HART**, **STEENBOCK**,
KLINE, and **HUMPHREY**,
86, 145

— See **STEENBOCK**, **HART**, **RHS-**
ING, **HOPPERT**, **BASHEROV**, and
HUMPHREY, 87, 103

— See **STEENBOCK**, **HART**, **HAN-**
NING, and **HUMPHREY**,
88, 197

Humphreys, George. See **RED-**
FIELD, **HUMPHREYS**, and **IN-**
GALLS, 82, 759

Hunkle, Victor. See **KERN**,
MONTGOMERY, and **STILL**,
93, 365

Hunscher, Helen A. The cal-
cium and phosphorus balances
of lactating women,
78, xxvi

— See **MACY**, **HUNSCHER**,
NIMS, and **McCOSH**,
86, 17

— Metabolism of women dur-
ing the reproductive cycle.
II. Calcium and phosphorus
utilization in two successive
lactation periods, 86, 37

— See **MACY**, **HUNSCHER**, **Mc-**
COSH, and **NIMS**, 86, 59

— See **McCOSH**, **MACY**, and
HUNSCHER, 90, 1

— See **DONELSON**, **NIMS**, **HUN-**
SCHER, and **MACY**, 91, 675

— **Cope**, **Frances**, **Noll**, **Alice**,
Macy, **Icie G.**, **Cooley**, **Thomas**

B., **Penberthy**, **Grover C.**, and
Armstrong, **Lillian.** Succes-
sive mineral balances in child-
hood, 97, lxiv

— **Donelson**, **Eva**, **Nims**, **Betty**,
Kenyon, **Fanny**, and **Macy**, **Icie**
G. Metabolism of women dur-
ing the reproductive cycle. V.
Nitrogen utilization,
99, 507

— **Cope**, **Frances**, **Noll**, **Alice**,
and **Macy**, **Icie G.** Calcium
and phosphorus storage in
growing children, 100, lv

Hunt, **Charles H.** The complex
nature of vitamin B as found
in wheat and corn, 78, 83

— Further evidence of the
complex nature of vitamin B.
I. Evidence that a third factor
exists, 79, 723

— and **Krauss**, **W. E.** The rela-
tive antineuritic and anti-
pellagic potency of cow's milk,
79, 733

— and **Wilder**, **Willard.** Fur-
ther evidence of the complex
nature of vitamin B. II. Evi-
dence that a third factor exists,
90, 279

— and **Krauss**, **W. E.** The in-
fluence of the ration of the cow
upon the vitamin B and vita-
min G content of milk,
92, 631

Hunter, **Andrew.** See **GEDDES**
and **HUNTER**, 77, 197

— Further observations on the
distribution of arginase in
fishes, 81, 505

— The creatine content of the
muscles and some other tissues
in fishes, 81, 513

- A note on the specific rotatory power of *d*-arginine, 82, 731
- and Dauphinee, James A. The arginase method for the determination of arginine and its use in the analysis of proteins, 85, 627
- Hunter, Jesse E. See HOGAN, HUNTER, and KEMPSTER, 77, 431
- See HOGAN and HUNTER, 78, xvii, 433
- Hunter, K. R. See HELLER, HUNTER, and THOMPSON, 97, 127
- Hunter, L. G. See BARBOUR, GREGG, and HUNTER, 87, xlv
- Huntsinger, Mildred E. See McCCLURE and HUNTSINGER, 76, 1
- Hurxthal, L. M. See DILL, BOCK, VAN CAULAERT, FÖLLING, HURXTHAL, and HENDERSON, 78, 191
- , Bock, A. V., Talbott, J. H., and Dill, D. B. Alkaline reserve and oxygen capacity of arterial and of venous blood, 81, 681
- Hussemann, Dorothy L. See PARSONS, KELLY, and HUSSEMAN, 100, lxxvi
- Huston, Ralph C., and Lightbody, Howard D. Some biochemical relations of phenols. I. Hydroquinone, 76, 547
- , —, and Ball, Charles D., Jr. Some biochemical relations of phenols. II. The effect of hydroquinone on the vitamin A content of stored oils, 79, 507
- Hyde, Elizabeth C., and Rose, William C. Arginine feeding and creatine-creatinine excretion in man, 84, 535
- Hynes, John. See McCLENDON, MATHIESON, and HYNES, 78, xlvi
- I
- Ingalls, Elizabeth. See REDFIELD, HUMPHREYS, and INGALLS, 82, 759
- Ingraham, Mary A. See BAUMANN, STEENBOCK, and INGRAHAM, 100, xiii
- Inouye, J. M. See FLINN and INOUE, 84, 101
- See CLARKE and INOUE, 89, 399
- 94, 541
- Insko, W. M., Jr. See ERIKSON, BOYDEN, MARTIN, and INSKO, 100, xl
- Irish, Don D. A new method of determining the fragility of blood platelets, 100, lvi
- Irving, Hazelwood. See FORBES and IRVING, 83, 337
- Irving, Laurence, and Wells, Phillip H. The occurrence of labile phosphorus in various kinds of muscles, 77, 97
- See FERGUSON and IRVING, 84, 143
- , Foster, H. C., and Ferguson, J. K. W. The carbon dioxide dissociation curve of living mammalian muscle, 95, 95
- Irwin, Margaret House, Brandt, A. E., and Nelson, P. Mabel. Applications of statistical method to the data of vitamin feeding experiments. I. The per cent effect of measured variables, 88, 449

Irwin, Margaret House, Brandt, A. E., and Nelson, P. Mabel
—continued.

—, —, and —. II. How many animals per experimental lot?

88, 461

Isaac, L. A. See RAY and ISAAC,
85, 549

Ivy, A. C. See RONY, MORTIMER,
and IVY, 96, 737

Jackson, Richard W. Metabolism of tryptophane,

78, lxvi

—, Sommer, Beatrice E., and Rose, William C. Experiments on the nutritive properties of gelatin, 80, 167

—. Indole derivatives in connection with a diet deficient in tryptophane. II, 84, 1

—. β -Oxidation in the indole series, 87, xiv

—. A synthesis of tryptophol, 88, 659

—, —, and —. The effect of mineral oil administration upon the nutritional economy of the vitamin A from butter fat, 92, vii

—, —, and —. See BLOCK and JACKSON, 92, xci

—, —, and JACKSON, W. T. The metabolism of tryptophane. III.

The availability of kynurenine in supplementing a diet deficient in tryptophane,

96, 697

—, —, and —. See BLOCK and JACKSON, 97, cvi

—, —, and BLOCK, Richard J. The metabolism of cystine and methionine. The availability

of methionine in supplementing a diet deficient in cystine, 98, 465

—, —, and —. See WHITE and JACKSON, 100, ciii

Jackson, W. T. See JACKSON and JACKSON, 96, 697

Jacobs, H. R. D., and Hoffman, William S. A new colorimetric method for the estimation of potassium, 93, 685

Jacobs, Walter A., and Gustus, Edwin L. The digitalis glucosides. I. Digitoxigenin and isodigitoxigenin, 78, 573

— and Hoffmann, Alexander. Periplocymarin and periplogenin, 79, 519

— and —. Strophanthin. XV. *Hispidus* strophanthin, 79, 531

— and Gustus, Edwin L. Strophanthin. XVI. Degradation in the isostrophanthidin series, 79, 539

— and —. The digitalis glucosides. II. Gitoxigenin and isogitoxigenin, 79, 553

— and Heidelberger, Michael. Sarmenocymarin and sarmenotogenin, 81, 765

— and Gustus, Edwin L. The digitalis glucosides. III. Gitoxigenin and isogitoxigenin, 82, 403

— and —. Strophanthin. XVII. Dehydration and lactone cleavage in isostrophanthic acid derivatives, 84, 183

— and —. The digitalis glucosides. IV. The correlation of gitoxigenin with digitoxigenin, 86, 199

- and Scott, Albert B. The hydrogenation of unsaturated lactones to desoxy acids, 87, 601
- and Fleck, Elmer E. The partial dehydrogenation of α - and β -amyrin, 88, 137
- and —. Saponins. V. The partial dehydrogenation of hederagenin, 88, 153
- Strophanthin. XVIII. Allocymarin and allostrophanthidin. An enzymatic isomerization of cymarin and strophanthidin, 88, 519
- and Gustus, Edwin L. The digitalis glucosides. V. The oxidation and isomerization of gitoxigenin, 88, 531
- and Fleck, Elmer E. Tigenin, a digitalis sapogenin, 88, 545
- , Elderfield, Robert C., Grave, Thomas B., and Wignall, Ernest W. Strophanthin. XX. The conversion of isostrophanthidic acid into the desoxo derivative, 91, 617
- and —. Strophanthin. XXI. The correlation of strophanthidin and periplogenin, 91, 625
- and —. XXII. The correlation of strophanthidin and periplogenin with digitoxigenin and gitoxigenin, 92, 313
- and Gustus, Edwin L. Strophanthin. XXIII. Ring II of strophanthidin and of related aglucones, 92, 323
- and Fleck, Elmer E. The partial dehydrogenation of ursolic acid, 92, 487
- , Elderfield, Robert C., Hoffmann, Alexander, and Grave, Thomas B. Strophanthin. XXIV. Isomeric hexahydrodianhydrostrophanthidins and their derivatives, 93, 127
- and Scott, Albert B. The hydrogenation of unsaturated lactones to desoxy acids. II, 93, 139
- and Fleck, Elmer E. The partial dehydrogenation of oleanolic acid, 96, 341
- and Bigelow, Newell M. The sugar of sarmentocymarin, 96, 355
- and Elderfield, Robert C. Strophanthin. XXV. The allocation of the lactone group of strophanthidin and related aglucones, 96, 357
- and Bigelow, Newell M. Ouabain or *g*-strophanthin, 96, 647
- and Fleck, Elmer E. Strophanthin. XXVI. A further study of the dehydrogenation of strophanthidin, 97, 57
- and Elderfield, Robert C. Strophanthin. XXVII. Ring III of strophanthidin and related aglucones, 97, 727
- The ergot alkaloids. I. The oxidation of ergotinine, 97, 739
- and Bigelow, Newell M. The strophanthins of *Strophanthus emini*, 99, 521
- and Elderfield, Robert C. The digitalis glucosides. VI. The oxidation of anhydrodihydrodigitoxigenin. The problem of gitoxigenin, 99, 693

- Jacobs, Walter A., and Elderfield, Robert C.—*continued*.
- and —. The digitalis glycosides. VII. The isomeric dihydrogigitoxigenins, 100, 671
- Jaffe, Henry L. See BODANSKY, BLAIR, and JAFFE, 88, 629
- . See BODANSKY and JAFFE, 92, xvi
93, 543
- . See BODANSKY, JAFFE, and CHANDLER, 97, lxvi
- Janecek, E. See MORGULIS, 93, 455
- Jenner, H. D., and Kay, H. D. The phosphatases of mammalian tissues. III. Magnesium and the phosphatase system, 93, 733
- Jensen, H. The isolation of arginine, histidine, and leucine from hydrolyzed crystalline insulin and the acetylation of crystalline insulin, 78, xli
- and Chen, K. K. A chemical study of Ch'an Su, the dried venom of the Chinese toad, with special reference to the isolation of epinephrine, 82, 397
- and —. Chemical studies of toad poisons, 87, xxxi
- and De Lawder, A. Further studies on crystalline insulin, 87, xlv
- and —. Studies on crystalline insulin. IX. The adsorption of insulin on charcoal, 87, 701
- and Chen, K. K. Chemical studies on toad poisons. II. Ch'an Su, the dried venom of the Chinese toad, 87, 741
- and —. III. The secretion of the tropical toad, *Bufo marinus*, 87, 755
- and Wintersteiner, Oskar. Studies on crystalline insulin. XIV. The isolation of glutamic acid, 97, 93
- and Evans, E. A., Jr. The chemical study of insulin, 97, xlviii
- and Chen, K. K. The chemical studies of toad poisons, 97, cx
- , Schock, E. D., and Sollers, E. Studies on crystalline insulin. XVI. The action of ammonium hydroxide and of iodine on insulin, 98, 93
- and Wintersteiner, Oskar. Studies on crystalline insulin. XVII. The hydrolysis products of insulin, 98, 281
- , Chen, K. K., and Chen, A. L. The chemical studies of toad poisons, 100, lvii
- Jephcott, H. See BACHARACH and JEPHCOTT, 82, 751
- Johansen, A. Hecht. Lipemia in hemorrhagic anemia in rabbits, 88, 669
- Johlin, J. M. The effect of carbon dioxide equilibration upon the surface tension of serum, 76, 559
- . Interfacial adsorption as a factor in the clotting of blood plasma, 81, 99
- . Interfacial adsorption as a function of the concentration of colloidal solutions, 84, 543
- . The isoelectric point of gelatin and its relation to the mini-

- mum physical properties of gelatin, 86, 231
- The influence of pH and solution concentration on the surface tension of gelatin solutions determined by the sessile bubble method, 87, 319
- The interfacial adsorption of gelatin as a function of the concentration and pH of its solutions, 87, xix
- The freezing point determination of physiological solutions. The usual errors and their elimination, 91, 551
- The action of neutral salts on the optical activity of gelatin, 92, 751
- Johnson, Clarence A. See RISING and JOHNSON, 80, 709
- Johnson, J. M., and Voegtlin, Carl. Arsenic derivatives of cysteine, 89, 27
- See VOEGTLIN, JOHNSON, and ROSENTHAL, 93, 435
- Johnson, M. J., Peterson, W. H., and Fred, E. B. Oxidation and reduction relations between substrate and products in the acetone-butyl alcohol fermentation, 91, 569
- Johnson, Margaret. See MAL-
LON, JORDAN, and JOHNSON,
88, 163
- Johnson, Otto. See ST. JOHN
and JOHNSON, 92, 41
- Johnston, Charles G. A comparison of pH determinations as obtained by means of hydrogen electrode and colorimetric methods, 79, 297
- and Wilson, D. Wright. The effect of hemorrhage on the acid-base equilibrium of the blood, 85, 727
- and Ball, Eric G. Variations in inorganic constituents of the pancreatic juice during constant drainage of the pancreatic ducts, 86, 643
- See ANDREWS and JOHNSTON, 100, vii
- Johnston, Margaret Woodwell, and Lewis, Howard B. Comparative studies of the metabolism of amino acids. I. Changes in the non-protein nitrogenous constituents of the blood following administration of amino acids, 78, 67
- The specific dynamic response of individuals suffering from disturbances of the hypophysis, 92, xciii
- Jones, B. F. See DILL, JONES, EDWARDS, and OBERG, 100, 755
- Jones, D. Breese. See CSONKA, PHILLIPS, and JONES, 78, xxiv
- and Csonka, Frank A. Studies on glutelins. IV. The glutelins of corn (*Zea mays*), 78, 289
- and Moeller, Otto. Some recent determinations of aspartic and glutamic acids in various proteins, 79, 429
- See NELSON and JONES, 80, 215
- and Gersdorff, Charles E. F. Proteins of the avocado (*Persea americana* Mill), 81, 533
- See CSONKA and JONES, 82, 17

Jones, D. Breese—*continued*.

— See CSONKA, PHILLIPS, and JONES, 85, 65

— See CSONKA, HORN, and JONES, 87, xviii

— See NELSON and JONES, 87, xlvii

— and Csonka, Frank A. The prolamins of dwarf yellow milo and feterita, two horticultural varieties of *Holcus sorghum*, 88, 305

— See CSONKA, HORN, and JONES, 89, 267

— and Nelson, E. M. Nutritive value of potato protein and of gelatin, 91, 705

— See NELSON, WALKER, and JONES, 92, vi

— See CSONKA and JONES, 92, xxxix

— and Gersdorff, Charles E. F. Ipomecin, a globulin from sweet potatoes, *Ipomoea batatas*. Isolation of a secondary protein derived from ipomecin by enzymic action, 93, 119

— See NELSON, WALKER, and JONES, 97, vi

— and Csonka, Frank A. Precipitation of soy bean proteins at various concentrations of ammonium sulfate, 97, xxix

— and Gersdorff, Charles E. F. Digestion studies *in vitro*. Some partial cleavage products from a peptic digest of casein, 100, lviii

Jones, Edward G. See GROTE, JONES, and KAMM, 92, xcv

Jones, James H., Rapoport, Milton, and Hodes, Horace L. The effect of irradiated ergos-

terol on thyroparathyroidec-tomized dogs, 86, 267

—, —, and —. The source of excess calcium in hypercalcemia induced by irradiated ergosterol, 89, 647

— and Robson, George M. The effect of large doses of irradiated ergosterol upon the ash content of the femora of young and adult rats, 91, 43

— and Rapoport, Milton. Further observations on the relation of calcium and phosphorus intake to the hypercalcemia and hyperphosphatemia induced by irradiated ergosterol, 93, 153

— See ASHER and JONES, 100, 333

— Relation of the parathyroid glands to the toxicity of irradiated ergosterol, 100, 343

Jones, Katharine. See FOLIN, 86, 179

Jordan, C. N. See THAYER, JORDAN, and DOISY, 79, 53

Jordan, Ruth. See MALLON, JORDAN, and JOHNSON, 88, 163

Jorgensen, Myron. See WADE, KATZMAN, and JORGENSEN, 100, xcvi

Jorpes, Erik. See LEVENE and JORPES, 81, 575
86, 389, 403

— On the chemical composition of the islands of Langerhans in the monkfish (*Lophius piscatorius*, L.), 86, 469

Josephs, Hugh W. Studies on iron metabolism and the influence of copper, 96, 559

- Jukes, T. H., and Kay, H. D. The basic amino acids of live-
tin, 98, 783
- Kahlenberg, Louis, and Barwas-
ser, Norbert. On the time of
absorption and excretion of
boric acid in man, 79, 405
- and Closs, John O. On the
presence of aluminum in plant
and animal matter, 83, 261
- and —. Presence of alumi-
num in animal and plant
matter, 85, 783
- Kahlenberg, O. J. See SUPPLEE,
FLANIGAN, KAHLENBERG, and
HESS, 91, 773
- See SUPPLEE, KAHLENBERG,
and FLANIGAN, 93, 705
- See FREAR and KAHLEN-
BERG, 100, 85
- Kahn, Bernard S., and Leiboff,
S. L. Colorimetric determi-
nation of inorganic sulfate in
small amounts of urine,
80, 623
- See ROE and KAHN, 81, 1
- See LEIBOFF and KAHN,
83, 347
- Kahn, Jos. See SOBOTKA, PECK,
and KAHN, 97, lxxix
- Kajdi, Laslo. See HAMILTON,
KAJDI, and MEEKER,
88, 331
- Kamerling, S. E. See WRIGHT,
CONANT, and KAMERLING,
94, 411
- Kamm, Oliver, Grote, Irvine W.,
and Rowe, L. W. The possi-
bility of interconversion of
pituitary hormones and the
formation of derived hormones
from the β -hormone of the
posterior lobe, 92, lxiix
- See GROTE, JONES, and
KAMM, 92, xciv
- See DU VIGNEAUD, SEALOCK,
SIFFERD, KAMM, and GROTE,
100, xciv
- Kane, E. A. See TURNER, KANE,
and HALE, 92, xiv
- Kapsinow, Robert, and Under-
hill, Frank P. Does cabbage
fed to rabbits increase serum
calcium? 82, 377
- Karr, Walter G., Petty, O. H.,
and Schumann, C. Respira-
tory quotient studies with
synthalin. (A diguanidyl de-
camethylene), 78, xli
- Karrer, P., and Salomon, H.
Note concerning the α - and β -
glycerophosphates, 93, 407
- Kassell, Beatrice. Creatinine
determination with the Pul-
frich photometer, 100, lviii
- Kastler, Arthur O. The influ-
ence of phlorhizin upon inor-
ganic metabolism, 76, 643
- Katzman, Philip A., and Doisy,
Edward A. Preparation, puri-
fication, and assay of an an-
terior pituitary-like substance
from urine during pregnancy,
97, lii
- and —. Preparation of ex-
tracts of the anterior pituitary-
like substance of urine of preg-
nancy, 98, 739
- See WADE, KATZMAN, and
JORGENSEN, 100, xcvi
- Kaucher, Mildred. See WANG,
HOGDEN, KAUCHER, and WING,
100, xcix

- Kay, H. D.** Plasma phosphatase in diseases of bone, 87, lii
 —. Plasma phosphatase. I. Method of determination. Some properties of the enzyme, 89, 235
 —. II. The enzyme in disease, particularly in bone disease, 89, 249
 — and Lee, E. R. The rate of hydrolysis of α - and β -glycerophosphates by enzymes, 91, 135
 —. See BRANION, GUYATT, and KAY, 92, xi
 —. Note concerning the α - and β -glycerophosphates. A reply to Karrer and Salomon, 93, 409
 —. A source of error in nitrogen and phosphorus determinations on filtrates obtained after precipitation of tissue colloids by trichloroacetic acid or other strong acid, 93, 727
 —. See JENNER and KAY, 93, 733
 —. See JUKES and KAY, 98, 783
 —. Changes in phosphoric ester content of the red blood cells and the liver in experimental rickets, 99, 85
Keeler, Leonarde. See LUCK and KEELER, 82, 703
Keenan, George L. The optical properties of some amino acids. II. Arginine and histidine, 83, 137
 — and Wildman, J. D. Note on a previously unrecorded occurrence of crystalline globulin in banana seeds, 88, 425
Keenan, J. A. See KLINE, KEENAN, ELVEHJEM, and HART, 98, 121
 —. See ELVEHJEM, KLINE, KEENAN, and HART, 99, 309
Keil, H. L. See TITUS, CAVE, and HUGHES, 80, 565
 — and Nelson, Victor E. The rôle of copper in hemoglobin regeneration and in reproduction, 93, 49
 — and —. The effect of oral administration of amino acids and intraperitoneal injection of various elements and hydrochloric acid on regeneration of hemoglobin, 97, 115
Keith, Norman M. See GREENE, BOLLMAN, KEITH, and WAKEFIELD, 91, 203
Kelly, Eunice. See PARSONS, 90, 351
 —. See PARSONS and KELLY, 100, 645
 —. See PARSONS, KELLY, and HUSSEMAN, 100, lxxvi
 —. See PARSONS, LEASE, and KELLY, 100, lxxvii
Keltch, Anna K. See GAEBLER and KELTCH, 76, 337
Kemmerer, A. R. See ELVEHJEM, STEENBOCK, and HART, 83, 27
 —. See ELVEHJEM and HART, 84, 131
 —. See ELVEHJEM, KEMMERER, HART, and HALPIN, 85, 89
 —, Elvehjem, C. A., and Hart, E. B. Studies on the relation of manganese to the nutrition of the mouse, 92, 623

- See ELVEHJEM and KEMMERER, 93, 189
- and Todd, W. R. The effect of diet on the manganese content of milk, 94, 317
- See ELVEHJEM and HART, 95, 363
- Kempster, Harry L. See HOGAN, HUNTER, and KEMPSTER, 77, 431
- Kendall, Arthur I., and Friedemann, Theodore E. The use of colloidal manganese dioxide for the determination of lactic acid, 78, lxi
- See FRIEDEMANN and KENDALL, 82, 23, 45
- Kendall, Edward C. The oxidizing and reducing power of cysteine and glutathione, 78, xl
- and Simonsen, Daisy G. Seasonal variations in the iodine and thyroxine content of the thyroid gland, 80, 357
- , McKenzie, Bernard F., and Mason, Harold L. A study of glutathione. I. Its preparation in crystalline form and its identification, 84, 657
- , Mason, Harold L., and McKenzie, Bernard F. A study of glutathione. III. The structure of glutathione, 87, 55
- , —, and —. Crystalline glutathione, 87, xli
- , —, and —. A study of glutathione. IV. Determination of the structure of glutathione, 88, 409
- and Holst, James E. The oxidation of cobaltous cysteine, 91, 435
- A chemical study of the active constituents of the suprarenal gland, 92, lvi
- Chemical studies of the suprarenal gland, 97, iv
- , Mason, Harold L., McKenzie, Bernard F., and Myers, C. S. The physiological action and the chemical nature of the active principle in the suprarenal gland essential to life, 100, lix
- Kendall, Forrest E. See HEIDELBERGER and KENDALL, 84, 639
- 85, 127
- 96, 541
- Kennard, Margaret A. See CHAMBERS, KENNARD, POLLACK, and DANN, 97, 525
- Kennedy, Cornelia, and Palmer, Leroy S. The fundamental food requirements for the growth of the rat. III. Yeast and yeast fractions as a supplement to synthetic rations, 76, 591
- and —. IV. Coprophagy as a factor in the nutrition of the rat, 76, 607
- and —. Heat and ultra-violet irradiation as means of differentiating vitamins B and G in yeast, 83, 493
- See PALMER and KENNEDY, 87, xlv
- 90, 545
- Kenyon, Fanny. See HUNSCHER, DONELSON, NIMS, KENYON, and MACY, 99, 507
- Kenyon, Marjorie B. See LIGHTBODY and KENYON, 80, 149

- Keresztesy, John.** See **EDDY**, **GURIN**, and **KERESZTESY**, 87, 729
- Kerly, Margaret, and Ronzoni, Ethel.** The effect of pH on the anaerobic metabolism of isolated frog muscle, 97, lxxiv
- See **RONZONI** and **KERLY**, 100, lxxxiv
- Kern, Ruth, Montgomery, Mary F., and Still, Eugene U.** The effect of large doses of irradiated ergosterol upon nitrogen, calcium, and phosphorus metabolism in rats, 93, 365
- Kerr, Stanley E.** The effect of insulin and of pancreatectomy on the distribution of phosphorus and potassium in the blood, 78, 35
- and **Krikorian, Vartan H.** The effect of insulin on the distribution of non-protein nitrogen in the blood, 81, 421
- Studies on the inorganic composition of blood. III. The influence of serum on the permeability of erythrocytes to potassium and sodium, 85, 47
- and **Blish, M. Eleanor.** The effect of insulin on the phosphorus compounds of muscle, 97, 11
- and —. A method for the determination of nucleotides in blood and muscle, 98, 193
- Kertesz, Zoltan I.** Method for the estimation of enzyme yield in fungus cultures, 90, 15
- Kick, C. H.** See **BETHKE**, **KICK**, and **WILDER**, 98, 389
- Kiech, Veon Carter, and Luck, James Murray.** The estimation of urea and amino acid nitrogen in animal tissues, 77, 723
- and —. The effect of insulin on protein metabolism, 78, 257
- , —, and **Smith, Anna Evelyn.** Studies on arginine. I. The rate of catabolism of arginine in rats, including a method for the determination of arginine in biological material, 90, 677
- and —. Amino acid metabolism. I. The relative rates of amino acid disappearance and urea formation, 94, 433
- Kik, M. C.** See **SURE**, **KIK**, and **WALKER**, 78, xviii
- 82, 287
- 83, 375, 387, 401
- See **SURE**, **KIK**, and **SMITH**, 87, xlii
- See **SURE**, **SMITH**, **KIK**, and **WALKER**, 92, viii
- See **SURE**, **KIK**, and **CHURCH**, 97, vi
- Kilborn, R. B.** See **PIERCE** and **KILBORN**, 81, 381
- Killian, John A.** See **MYERS** and **KILLIAN**, 78, 591
- Kimmel, Louise.** See **MORGAN**, **KIMMEL**, **THOMAS**, and **SAMISCH**, 100, lxxi
- Kinard, F. W.** See **CHANUTIN** and **KINARD**, 99, 125
- King, C. G.** See **GRETTIE** and **KING**, 84, 771

- See MCKINNIS and KING, 87, 615
- See SVIRBELY and KING, 94, 483
- See SMITH and KING, 94, 491
- See GLICK and KING, 94, 497
95, 477
- See WAUGH and KING, 97, 325
- See GLICK and KING, 97, 675
- King, Earl J.** The estimation of silica in tissues, 80, 25
- See MORGAN and KING, 95, 613
- King, Florance B.** See MORGAN, 90, 771
- King, Harriette.** See COX, KING, and BERG, 81, 755
- See COX and KING, 84, 533
- Kinney, F. M.** See MULL and KINNEY, 100, lxxiii
- Kinsman, Simon.** See ANDERSON and KINSMAN, 94, 39
- Kirk, Esben.** See VAN SLYKE, PAGE, and KIRK, 100, xciii
- Kirk, J. Stanley, and Sumner, James B.** Antiurease, 94, 21
- and —. Further studies on antiurease, 97, lxxxvii
- See SUMNER, KIRK, and HOWELL, 98, 543
- The concentration of soy bean urease. A new method for the purification of enzymes, 100, 667
- Kirk, Paul L., and Schmidt, Carl L. A.** Studies on the behavior of sodium and barium amalgam electrodes in solutions of certain amphoteric substances, 76, 115
- and —. The dissociation constants of certain amino acids, 81, 237
- See SCHMIDT, KIRK, and SCHMIDT, 81, 249
- See SCHMIDT, APPLEMAN, and KIRK, 81, 723
- and Schmidt, Carl L. A. An improved technique for micro calcium analysis, 83, 311
- See SCHMIDT, APPLEMAN, and KIRK, 85, 137
- See EMERSON and KIRK, 87, 597
- See SCHMIDT, KIRK, and APPLEMAN, 88, 285
- See DALTON, KIRK, and SCHMIDT, 88, 589
- See EMERSON, KIRK, and SCHMIDT, 92, 449
- Klabunde, Harriette King.** Note on the preparation of hydroxyproline, 90, 293
- Klein, Daniel, and Russell, Walter C.** The fate of the antirachitic factor in the chicken. I. The antirachitic factor balance in the growing chick, 93, 693
- Kleiner, Israel S., and Bell, Marion.** The effect of supplementary feeding of carbohydrates and of fat upon the composition of human milk, 78, xxv
- See BELL and KLEINER, 87, xxxv
- See TAUBER and KLEINER, 92, 177
96, 745

Kleiner, Israel S.—*continued.*

— and Tauber, Henry. Studies on rennin. II. The isolation of prorennin, 96, 755

— and —. Enzymes of the mammary gland. The presence of glucomaltase in the mammary gland, 99, 241

— See TAUBER and KLEINER, 99, 249

— and Tauber, Henry. A practical method for the simultaneous estimation of lactose and glucose in urine, 100, 749

Klemme, Dorothea. See POE and KLEMMER, 87, 7

Kletzien, S. W. F. See STEENBOCK, HART, RISING, KLETZIEN and SCOTT, 87, 127

—, Thomas, B. H., Templin, Vera M., and Steenbock, H. Vitamin D and calcium conservation in the adult rat, 92, ix

— See STEENBOCK, KLETZIEN, and HALPIN, 97, 249

—, Templin, Vera M., Steenbock, H., and Thomas, B. H. Vitamin D and the conservation of calcium in the adult. I, 97, 265

Kline, O. L. See HART, STEENBOCK, KLINE, and HUMPHREY, 86, 145

—, Schultze, M. O., and Hart, E. B. Carotene and xanthophyll as sources of vitamin A for the growing chick, 97, 83

—, Keenan, J. A., Elvehjem, C. A., and Hart, E. B. Lactose in nutrition, 98, 121

—, —, —, and —. The use of the chick in vitamin B₁ and B₂ studies, 99, 295

— See ELVEHJEM, KLINE, KEENAN, and HART, 99, 309

Klotz, Benjamin Howard. See BLOCK, COWGILL, and KLOTZ, 94, 765

Knowlton, G. Clinton. See STEARNS and KNOWLTON, 92, xii, 639

Knudson, Arthur. See RANGLES and KNUDSON, 76, 89

— and Moore, Chester N. Comparison of the antirachitic potency of ergosterol irradiated by ultra-violet light and by exposure to cathode rays, 78, xix

81, 49

— See RANGLES and KNUDSON, 82, 57

— See DALY and KNUDSON, 97, lvii

Knutsen, M. H. See BECHDEL, HONEYWELL, DUTCHER, and KNUTSEN, 80, 231

Ko, Luther. See SHRINER and KO, 80, 1

Koch, Elizabeth M. See KOCH, KOCH, and RAGINS, 85, 141

—, Koch, Fred C., and Lemon, Harvey B. Absorption spectra studies on cholesterol and ergosterol, 85, 159

Koch, Fred C. See CARTLAND and KOCH, 78, xxii

— See GALLAGHER and KOCH, 84, 495

— A modified Van Slyke amino nitrogen apparatus, 84, 601

—, Koch, Elizabeth M., and Ragins, Ida Kraus. Fractionation studies on provitamin D, 85, 141

- See KOCH, KOCH, and LEMON, 85, 159
- See COLE and KOCH, 94, 263
- See GALLAGHER, DOMM, and KOCH, 100, xlvii
- See GALLAGHER and KOCH, 100, xlvii, xlviii
- Kocher, R. A., and Torbert, Harold C.** The effect of urea ingestion on the nitrogen partition of the urine at endogenous nitrogen level, 95, 427
- The total metabolism of the king snake, with special reference to the specific dynamic action of food, 97, lxxi
- Koehler, Alfred E.** The blood sulfur in diseases of the energy metabolism, 78, lxx
- and Eichelberger, L. The suprarenal epinephrine-lipoid combination, 87, xxxviii
- , Bischoff, Fritz, and Hill, Elsie. Metabolic effects of prolonged administration of epinephrine, 92, li
- A chamber for measuring the oxygen consumption of animals, 95, 67
- See HILL and KOEHLER, 98, 185
- Koenig, Karl.** See GROVE, OLMSTED, and KOENIG, 85, 127
- Koessler, Karl K.** See HANKE and KOESSLER, 80, 499
- Komarov, S. A.** See WEBSTER and KOMAROV, 96, 133
- Koskoff, Y. D.** See HIMWICH, KOSKOFF, and NAHUM, 85, 571
- See HIMWICH, CHAMBERS, KOSKOFF, and NAHUM, 90, 417
- Kozelka, F. L., Hart, E. B., and Bohstedt, G.** Growth, reproduction, and lactation in the absence of the parathyroid glands, 100, 715
- Reproduction and lactation in the absence of the parathyroid glands and their probable function, 100, lx
- Kozłowska, M. S., and McCay, C. M.** A new technique for determining the dietary factors that influence the secretion of milk in laboratory animals, 92, lxiii
- Krafka, Joseph, Jr.** Endogenous uric acid and hematopoiesis, 83, 409
- Endogenous uric acid and hematopoiesis. II. Uric acid, reticulocytes, and erythrocytes after hemolysis by phenylhydrazine hydrochloride, 86, 223
- Kramer, Benjamin.** See SHELLING, KRAMER, and ORENT, 77, 157
- See SHEAR and KRAMER, 79, 105
- and Shear, M. J. Composition of bone. II. Pathological calcification, 79, 121
- See SHEAR and KRAMER, 79, 125
- and Shear, M. J. Composition of bone. IV. Primary calcification, 79, 147
- See SHEAR and KRAMER, 79, 161

- Kramer, Benjamin**—*continued*.
 —, Shear, M. J., and McKenzie, Margaret R. Composition of bone. VI. Effect of massive doses of irradiated ergosterol, 82, 555
 —. See SHEAR, WASHBURN, and KRAMER, 83, 697
 —. See SHEAR, KRAMER, and RESNIKOFF, 83, 721
 —. See SHEAR and KRAMER, 86, 677
 —, Shear, M. J., and Siegel, Jac. Composition of bone. X. Mechanism of healing in low phosphorus rickets, 91, 271
 —, —, and —. XII. Effect of inadequate amounts of viosterol on the healing of rickets, 91, 723
 —. See SOBEL and KRAMER, 97, lxxxix
 100, 561
- Kramer, H.** See GOOD, KRAMER, and SOMOGYI, 100, 485
- Kramer, Hildegard V.** See SOMOGYI and KRAMER, 80, 733
- Kramer, Martha M., Latzke, Esther, and Shaw, Mary Margaret.** A comparison of raw, pasteurized, evaporated, and dried milks as sources of calcium and phosphorus for the human subject, 79, 283
- Krause, A. C., and Yudkin, Arthur M.** The chemical composition of the normal aqueous humor of the dog, 88, 471
- Krauss, W. E.** See HUNT and KRAUSS, 79, 733
 — and Monroe, C. F. A comparison of the influence of iodized milk and of potassium iodide administered directly, on the size and iodine content of the thyroid gland of rats, 89, 581
 —. The ineffectiveness of manganese in nutritional anemia, 90, 267
 — and Bethke, R. M. Effect on the vitamin D content of milk of feeding irradiated ergosterol to cows, 92, x
 —. See HUNT and KRAUSS, 92, 631
- Krikorian, Vartan H.** See KERR and KRIKORIAN, 81, 421
- Kriss, Max.** See SMITH, YUDKIN, KRISS, and ZIMMERMAN, 92, xcii
- Kruger, John Henry.** See MITCHELL and KRUGER, 76, 55
- Kruse, H. D., Orent, Elsa R., and McCollum, E. V.** Studies on magnesium deficiency in animals. I. Symptomatology resulting from magnesium deprivation, 96, 519
 —, —, and —. Chemical changes in the blood following magnesium deprivation, 97, iii
 —, —, and —. Studies on magnesium deficiency in animals. III. Chemical changes in the blood following magnesium deprivation, 100, 603

- Kugelmass, I. Newton.** Diet and hemorrhagic disease, 97, xii
- Kung, Lan-Chên.** See ROSE and KUNG, 98, 417
- Kurland, Sarah.** See BAUMANN, KURLAND, and METZGER, 94, 383
- Kuttner, Theodore, and Lichtenstein, Louis.** Microcolorimetric studies. II. Estimation of phosphorus: molybdic acid-stannous chloride reagent, 86, 671
- and —. III. Estimation of organically bound phosphorus. A system of analysis of phosphorus compounds in blood, 95, 661
- Kutz, R. L.** Methods for analysis of tissue for certain inorganic constituents, 92, lxxii
- Kuyper, Adrian C., and Mattill, H. A.** The metabolism of citric acid, 100, lxi
- Kydd, David M.** Hydrogen ion concentration and acid-base equilibrium in normal pregnancy, 91, 63
- , Oard, Harry C., and Peters, John P. The acid-base equilibrium in abnormal pregnancy, 98, 241
- and Peters, John P. The alleged alkalosis in pregnancy, 98, 261
- La Forge, F. B., and Hudson, C. S.** Note concerning the identity of volemitol and α -sedoheptitol, 79, 1
- Lamb, Alvin R., and Evvard, John M.** The acid-base balance in animal nutrition. IV. The effect of mineral acid ingestion by swine through three generations, 78, xxviii
- and —. IV. The effect of long continued ingestion of acid on reproduction in swine, rats, and rabbits, 94, 415
- Landis, Carney.** Effect of startle on electrocardiogram and respiration following injection of adrenalin, 100, lxi
- Landsbury, J.** See AMBERG and LANDSBURY, 78, xlvii
- Langley, Wilson D.** Metabolism of amines. I. Trimethylamine, 84, 561
- and Weber, Richard J. Metabolism of amines. II. Dimethylamine, 89, 567
- , Rosenbaum, Myron G., and Rosenbaum, Maurice M. The solubility of calcium stearate in solutions containing bile and in water, 99, 271
- Larson, Hardy W.** A colorimetric method for the determination of allantoin, 94, 727
- The effect of urea on glucose determination by the formose reaction, 98, 151
- Lasker, Margaret.** See BRAND, HARRIS, SANDBERG, and LASKER, 87, ix
- Latzke, Esther.** See KRAMER, LATZKE, and SHAW, 79, 283

- Laug, Edwin P., and Wilson, D. Wright.** The determination of the pH of serum with the quinhydrone electrode, 87, xxvii
- . The application of the quinhydrone electrode to the determination of the pH of serum and plasma, 88, 551
- . See **STADIE, O'BRIEN, and LAUG**, 91, 243
- Laughton, N. B., Macallum, A. Bruce, Rabinowitch, I. M., and Watson, E. M.** Further observation on action of duodenal extract on blood sugar, 92, xx
- Lava, Vicente G.** See **HOLMES, LAVA, DELFS, and CASSIDY**, 99, 417
- Lavietes, Paul H.** See **MOORE, LAVIETES, WAKEMAN, and PETERS**, 91, 373
- Lavine, Theodore F.** See **TOENNIES and LAVINE**, 89, 153
90, 203
100, 463, xci
- Lawrence, J. S.** See **DILL, BOCK, LAWRENCE, TALBOTT, and HENDERSON**, 81, 551
- Lease, Jane G.** See **PARSONS, LEASE, and KELLY**, 100, lxxvii
- Leavenworth, Charles S.** See **VICKERY and LEAVENWORTH**, 76, 437, 701, 707
78, 627
79, 377
83, 523
86, 129
- Lecoq, Raoul.** Are the Williams-Waterman vitamin B₃ and Rando-Lecoq nutritional vitamin the same? 91, 671
- Lee, E. R.** See **KAY and LEE**, 91, 135
- van Leersum, E. C.** Vitamin A deficiency and urolithiasis, 76, 137
- . Vitamin A deficiency and calcification of the epithelium of the kidney, 79, 461
- Lehnherr, E. R.** See **NELSON and LEHNHERR**, 78, xlix
- Leiboff, S. L.** A colorimetric method for the determination of inorganic phosphate in blood serum, 79, 611
- . A colorimetric method for the determination of lipoidal phosphorus in blood, 80, 211
- . See **KAHN and LEIBOFF**, 80, 623
- and **Kahn, Bernard S.** A rapid and accurate method for the determination of urea in blood, 83, 347
- . The absence of calcium in the human red blood cell, 85, 759
- Leland, Jessica P., and Foster, G. L.** A method for the determination of thyroxine in the thyroid, 95, 165
- Lemon, Harvey B.** See **KOCH, KOCH, and LEMON**, 85, 159
- Lepkovsky, Samuel.** See **EVANS and LEPKOVSKY**, 83, 269
- . The distribution of serum and plasma proteins in fish, 85, 667

- , Wood, Clarence, and Evans, Herbert M. Glucose tolerance in avitaminosis due to low antineuritic vitamin B, 87, 239
- See EVANS and LEFKOVSKY, 92, 615
- 96, 143, 157, 165, 179
- 99, 231, 235, 237
- Levene, P. A., and Steiger, Robert E. Studies on racemization. VI. Action of alkali on peptides and ketopiperazines, 76, 299
- and Haller, H. L. Configurational relationships of 3-hydroxyvaleric and lactic acids and of ethylmethyl and ethylpropyl carbinols, 76, 415
- and Meyer, G. M. On the pentabenzates of glucose, 76, 513
- and —. The structure of tetramethyl- γ -methylmannoside, 76, 809
- and Haller, H. L. Configurational relationships of 2-hydroxyvaleric and lactic acids, 77, 555
- and Wolfrom, M. L. Lactone formation of cellobionic and of glucoarabonic acids and its bearing on the structure of cellobiose, 77, 671
- and Walti, A. Studies in polymerization and condensation. II. Products of interreaction of potassium acetate and epichlorohydrin, 77, 685
- and Mori, T. On Walden inversion. XII. On the oxidation of 3-thiolvaleric and of 4-thiolvaleric acids and its significance in connection with Walden inversion, 78, 1
- and Walti, A. Studies in polymerization and condensation. III. On autocondensation of dihydroxyacetone, 78, 23
- and Bass, Lawrence W. Studies on racemization. VII. The action of alkali on casein, 78, 145
- and Meyer, G. M. The α and β forms of diacetone methylmannoside, 78, 363
- and Wolfrom, M. L. Acetyl monoses. IV. Two isomeric triacetyl methyllyxosides, 78, 525
- and Steiger, Robert E. The action of acetic anhydride and pyridine on amino acids, 79, 95
- and Meyer, G. M. Monoacetone γ -methylglucoside, 79, 357
- and Walti, A. Studies in polymerization and condensation. IV. Experiments on glycidol acetate, 79, 363
- The concentration of vitamin B. IV. On the concentration and the separation of the two components of vitamin B, 79, 465
- and Wolfrom, M. L. Acetyl monoses. V. The rates of hydrolysis of tetraacetylmethylmannosides and of triacetylmethyllyxosides, 79, 471
- and Haller, H. L. Configurational relationships of methylbutyl carbinol and of 2-hydroxycaproic acid to lactic acid.

Levene, P. A.—*continued.*

- With a note on the relationship of chemical structure to optical activity, 79, 475
- See **RAYMOND** and **LEVENE**, 79, 621
- and **Blanco, J. G.** Dihydroxyacetone and insulin hypoglycemia, 79, 657
- and **Taylor, F. A.** On ceribronic acid. VI, 80, 227
- See **TAYLOR** and **LEVENE**, 80, 609
- and **Raymond, Albert L.** Hexosediphosphate, 80, 633
- and **Mori, T.** On inosinic acid. IV. The structure of the ribophosphoric acid, 81, 215
- , **Bass, Lawrence W.**, and **Steiger, Robert E.** The relation of chemical structure to the rate of hydrolysis of peptides. IV. Enzyme hydrolysis of dipeptides, 81, 221
- and **Raymond, Albert L.** Hexosemonophosphate (Robison), 81, 279
- and **Rothen, Alexandre.** Reactivity of some carbinols. With a note on Walden inversion, 81, 359
- and **Haller, H. L.** On the configurational relationship of 3-hydroxybutyric and 3-chlorobutyric acids. With a further note on the configurational relationship of 3-hydroxybutyric acid and methylpropyl carbinol, 81, 425
- and **Jorpes, Erik.** The rate of hydrolysis of ribonucleotides, 81, 575
- , **Bass, Lawrence W.**, **Rothen, Alexandre**, and **Steiger, Robert E.** The effect of ionization upon optical rotation. IV. Further studies on amino acids and peptides, 81, 687
- , —, and **Steiger, Robert E.** The relation of chemical structure to the rate of hydrolysis of ketopiperazines. I. Hydrolysis of N-methylketopiperazines by alkali, 81, 697
- and **Haller, H. L.** On the configurational relationship of lactic acid and 2-chloropropionic acid. With a further note on the configurational relationship of lactic acid and methylpropyl carbinol, 81, 703
- and **London, E. S.** Guanine-desoxypentoside from thymus nucleic acid, 81, 711
- , **Steiger, Robert E.**, and **Bass, Lawrence W.** The relation of chemical structure to the rate of hydrolysis of peptides. V. Enzyme hydrolysis of dipeptides, 82, 155
- , **Bass, Lawrence W.**, and **Steiger, Robert E.** The relation of chemical structure to the rate of hydrolysis of peptides. VI. Hydrolysis of dipeptides by alkali, 82, 167
- and —. Studies on racemization. VIII. The action of alkali on proteins: racemization and hydrolysis, 82, 171
- , **Raymond, A. L.**, and **Walt, A.** A new case of Walden inversion in the hexose series, 82, 191

- and Haller, H. L. The configurational relationship of 2-methylheptanol-(6) to lactic acid. With a note on the effect of unsaturation on optical activity, 83, 177
- and —. On the configurational relationship of chlorosuccinic acid to chloropropionic acid and to lactic acids, 83, 185
- and —. The configurational relationships of ethylbutyl and propylbutyl carbinols to lactic acid. With a note on the effect of unsaturation on optical activity, 83, 579
- and —. The correlation of the configurations of 2-, 3-, and 4-substituted chloro- and hydroxyaliphatic acids, 83, 591
- See RAYMOND and LEVENE, 83, 619
- and London, E. S. The structure of thymonucleic acid, 83, 793
- and Mori, T. Ribodeseose and xylodeseose and their bearing on the structure of thyminose, 83, 803
- See TAYLOR and LEVENE, 84, 23
- and Walti, A. Studies in polymerization and condensation. V. Condensation products of methylecyclo-dihydroxyacetone, 84, 39
- and Meri, T. The carbohydrate group of ovomucoid, 84, 49
- and Rothen, Alexandre. On the molecular size of the carbohydrates obtained from egg proteins, 84, 63
- and Mikeska, L. A. On Walden inversion. XIII. The influence of substituting groups on optical rotation in the series of disubstituted acetic acids, 84, 571
- , —, and Mori, T. On the carbohydrate of thymonucleic acid, 85, 785
- and Jorpes, Erik. A method of separation of ribopolynucleotides from thymonucleic acid and on the conditions for a quantitative separation of the purine bases from the ribopolynucleotides, 86, 389
- and —. On the structure of melibiose, 86, 403
- and Steiger, Robert E. Studies on racemization. IX. Action of alkali on ketopiperazines. Action of hydrochloric acid on amino acids, peptides, and ketopiperazines, 86, 703
- , Rothen, Alexandre, Steiger, Robert E., and Osaki, Masao. The relation of chemical structure to the rate of hydrolysis of ketopiperazines. II. Hydrolysis of ketopiperazines by alkali, 86, 723
- and Stevens, P. G. Configurational relationships of phenylated carbinols, 87, 375
- , Mikeska, L. A., and Passoth, Kurt. On Walden inversion. XIV. The influence of substituting groups on optical rota-

Levene, P. A.—*continued.*

- tion in the series of disubstituted acetic acids containing a phenyl group, 88, 27
- and Raymond, Albert L. The action of benzoic peracid on substituted glucals, 88, 513
- and Dillon, Robert T. Intestinal nucleotidase, 88, 753
- and Walti, A. Studies in polymerization and condensation. VI. 5,6-Dihydroxyhexanone-2, 88, 771
- and Mikeska, L. A. On the ring structure of methylglucosides, 88, 791
- and Stevens, P. G. The hydrogenation of methylphenyl and methylbenzyl carbinols. With a note on the reduction of phenylated carbinols, 89, 471
- and Raymond, Albert L. Hexosemonophosphates. Glucose-3-phosphate, glucose-6-phosphate and their bearing on the structure of Robison's ester, 89, 479
- and Walti, A. Configurational relationships of phenylated carbinols. III, 90, 81
- and Tipson, R. Stuart. Acetyl monoses. VI. The ring structure of the mannose pentacetates, 90, 89
- and Raymond, Albert L. Note on the preparation of bromoacetyl sugars and of acetoglucals, 90, 247
- and Marker, R. E. The configurations of the secondary carbinols of the isopropyl and of the isobutyl series, 90, 669
- and —. On Walden inversion. XV. The influence of substituting groups on optical rotation in the series of disubstituted propionic acids containing a methyl group, 91, 77
- and —. Configurational relationship of hydrocarbons. I. Optically active methane derivatives containing propyl, isopropyl, isobutyl, isoamyl, and isohexyl groups, 91, 405
- , Meyer, G. M., and Raymond, Albert L. On the monomethyl glucose of Pacsu, 91, 497
- and Marker, R. E. On Walden inversion. XVI. The influence of substituting groups on optical rotation in the series of disubstituted propionic acids containing an ethyl group, 91, 687
- and Raymond, Albert L. Hexosemonophosphate (Robison). Natural and synthetic, 91, 751
- and Marker, R. E. Configurational relationship of hydrocarbons. II. Optical rotations of hydrocarbons of the normal series, 91, 761
- and Cortese, Frank. Synthetic nucleosides. III. Theophylline-*d*-glucosides, 92, 53
- and Tipson, R. Stuart. Acetyl monoses. VII. The isomeric triacetyl-1-methyl-*d*-ribosides, 92, 109

- and Meyer, G. M. The ring structure of diacetone galactose, 92, 257
- and Marker, R. E. Configurational relationship of hydrocarbons. III. The optical rotations of the hydrocarbons of the series methylisobutylmethane, 92, 455
- and Raymond, Albert L. Hexosemonophosphates. Synthetic Robison ester, 92, 757
- and —. Hexosemonophosphates. Galactose-6-phosphate, 92, 765
- and Dillon, Robert T. γ -Glucoside of 3-methyl- d -glucose, 92, 769
- and Dmochowski, A. The comparative rates of hydrolysis of adenylic, guanylic, and xanthylic acids, 93, 563
- and Schormüller, A. Chemistry of chromoproteins. I. On the chromophoric group of *Rhodymenia palmata*, 93, 571
- and Steiger, Robert E. The action of acetic anhydride on tertiary amino acids and dipeptides. On catalytic effects. The hydrolysis of acetyl-dipeptides, 93, 581
- , —, and Marker, R. E. Studies on racemization. X. Action of alkali on ketopiperazines and peptides, 93, 605
- and Tipson, R. Stuart. The ring structure of normal methylriboside, 93, 623
- and —. The action of benzoic peracid on substituted glucals. II, 93, 631
- and Marker, R. E. Chemical structure and optical rotation. I. The configurational relationship of disubstituted propionic acids containing a phenyl group. II. On the optically active trisubstituted methanes containing a phenyl group, 93, 749
- and Walti, A. Studies in polymerization and condensation. VII. Polymerization of the α -hydroxyaldehydes, 94, 353
- and —. Phytochemical reductions. The configurations of glycols obtained by reduction with fermenting yeast, 94, 361
- and —. On the configurational relationship of the carbinols of the isobutyl series and of ethylbenzylcarbinol to the simple aliphatic carbinols, 94, 367
- and —. Configurational relationship of α -hydroxyheptanoic acid to other α -hydroxy acids, 94, 593
- and Tipson, R. Stuart. The ring structure of adenosine, 94, 809
- and Marker, R. E. Configurational relationship of hydrocarbons. IV. Optical rotations of hydrocarbons of the isoamyl series. The configurational relationship of substituted carbonic acids containing an isobutyl and an isoamyl group to those of the corresponding normal carbonic acids, 95, 1

Levene, P. A.—*continued.*

— and —. On Walden inversion.

XVII. Optical rotations in homologous series of carboxylic acids, 95, 153

—, Concentration of vitamins B₁ and B₂, 95, 317

—, Raymond, Albert L., and Dillon, Robert T. Glucoside formation in the commoner monoses, 95, 699

— and Harris, Stanton A. The ribosephosphoric acid from xanthylic acid, 95, 755

—, Raymond, Albert L., and Dillon, Robert T. Structure of γ -glycosides, 96, 449

— and Dillon, Robert T. Intestinal nucleotidase and polynucleotidase, 96, 461

— and Marker, R. E. Configurational relationships of methylphenyl-, methylcyclohexyl-, and methylhexylcarbinols and of their homologues, 97, 379

— and Tipson, R. Stuart. The ring structure of guanosine, 97, 491

— and Marker, R. E. Chemical structure and optical rotation. III. The configurational relationship of disubstituted propionic acids containing a cyclohexyl group. Also, a correction to the paper on the configurational relationship of disubstituted propionic acids containing a phenyl group, 97, 563

—, Steiger, Robert E., and Rothen, Alexandre. The relation of chemical structure to the

rate of hydrolysis of peptides.

VII. Hydrolysis of dipeptides by alkali, 97, 717

— and Raymond, Albert L. On the structure of the so called 5-methylglucose of Ohle and von Vargha, 97, 751

— and —. The substitution of glucose in position (4). I, 97, 763

— and Marker, R. E. Maximum rotations and correlation of disubstituted acetic acids containing a methyl group, 98, 1

— and Harris, Stanton A. The ribosephosphoric acid from xanthylic acid. II, 98, 9

— and Cortese, Frank. A note on the use of 1-bromotetramethylglucose for the synthesis of methylated glycosides, 98, 17

—, See LIPMANN and LEVENE, 98, 109

— and Steiger, Robert E. Studies on racemization. XI. Action of alkali on polypeptides, 98, 321

— and Walti, A. Phytochemical reduction of 1-hydroxy-2-oxoheptane (heptanol-1-one-2), 98, 735

— and Marker, R. E. Configurational relationships of methylphenyl-, methylcyclohexyl-, and methylhexylcarbinols and of their homologues. A correction, 99, 321

— and Yang, Peter S. Studies on racemization. XII. Action of alkali on polypeptides composed of levo-alanine, 99, 405

- and Schormüller, A. The synthesis of tyrosinephosphoric acid, 100, 583
- , Marker, R. E., and Rothen, Alexandre. Chemical structure and optical rotation. IV. The configurational relationship of disubstituted acetic and propionic acids containing a phenyl group, 100, 589
- and —. Maximum rotations of phenyl compounds, 100, 685
- and —. Configurational relationship of hydrocarbons. V. Optical rotations of hydrocarbons of the isopropyl series, 100, 769
- Levin, Louis. See THAYER, LEVIN, and DOISY, 91, 655, 791
- , MacCorquodale, D. W., Thayer, Sidney A., and Doisy, Edward A. The oxygen equivalents of theelin and theelol and of some of their derivatives, 100, lxii
- Levine, Harold. Studies on the relation of diet to goiter. I. A dietary technique for the study of goiter in the rat, 97, c
- Levy, Irving. See GREENWALD and LEVY, 87, 281, 97, xci
- Levy, Milton, and Doisy, Edward A. The effect of borate on the oxidation of glucose and other sugars, 77, 733
- The reaction of borate and some simple sugars, 78, liii
- and Doisy, Edward A. The reaction of borate and sugars. II. The optical activity of sugars in borax solution and the configuration of mutarotatory isomers, 84, 749
- The reaction of borate and sugars. III. The freezing point lowering of sugars in borax solutions, 84, 763
- The preparation and some properties of the crystalline methemoglobin of the horse, 89, 173
- The titration constants of amino acids in the formol titration, 97, xcii
- Equilibria in the formol titration, 99, 767
- Lewis, Howard B. See DIACK and LEWIS, 77, 89
- See JOHNSTON and LEWIS, 78, 67
- and Lough, S. Allan. The metabolism of sulfur. XIV. A metabolic study of a case of cystinuria, 81, 285
- See LIGHTBODY and LEWIS, 82, 485, 663
- See WILSON and LEWIS, 84, 511
- See CATRON and LEWIS, 84, 553
- See WILSON and LEWIS, 85, 559
- See STEARNS and LEWIS, 86, 93
- See WILEY and LEWIS, 86, 511
- See CHANDLER and LEWIS, 87, lvi
- and O'Connor, Marie F. Cystinuria and tuberculosis, 87, lvii

Lewis, Howard B.—*continued*.

— See SHAMBAUGH, LEWIS,
and TOURTELLOTE,

92, 499

— See LOUGH and LEWIS,
94, 739

— See SILBERMAN and LEWIS,
95, 491

— See CHANDLER and LEWIS,
96, 619

— See MILLER and LEWIS,
98, 133, 141

— See WHITE and LEWIS,
98, 607

— See VIRTUE and LEWIS,
100, xcv

Lewis, Robert C., and Mattison,
Inez H. The rate of elimina-
tion of urea as a measure of
kidney function, 78, lxxvi

— and Binkley, Neva L. A
method for the determination
of blood chlorides, 87, xxiii

— See WILLIAMS and LEWIS,
89, 275

— See UNDERHILL, ORTEN, and
LEWIS, 91, 13

— See RYMER and LEWIS,
95, 441

— See ORTEN, UNDERHILL, and
LEWIS, 96, 1

— See ORTEN, UNDERHILL, MU-
GRAGE, and LEWIS, 96, 11

— See GERAGHTY, UNDERHILL,
ORTEN, and LEWIS, 99, 451

— See ORTEN, UNDERHILL,
MUGRAGE, and LEWIS,
99, 457, 465

— See UNDERHILL, ORTEN, MU-
GRAGE, and LEWIS, 99, 469

— and Rymer, Marion R. Fur-
ther evidence concerning the

multiple nature of the vitamin
B complex of yeast,

100, lxiii

Lichtenstein, Louis. See KUTT-
NER and LICHTENSTEIN,

86, 671

95, 661

Lichtman, S. S., and Sobotka,
Harry. An enzymatic method
for the detection and estima-
tion of tyrosine in urine,
85, 261

Light, Robert F., Miller, Glen-
nard E., and Frey, Charles N.
Studies on the effects of over-
dosage of vitamin D,

84, 487

—, —, and —. Studies on the
effects of overdosage of vita-
min D. II, 92, 47

— See HESS, LIGHT, FREY, and
GROSS, 97, 369

Lightbody, Howard D. See HUS-
TON and LIGHTBODY,

76, 547

— See HUSTON, LIGHTBODY,
and BALL, 79, 507

— and Kenyon, Marjorie B.
Feeding experiments with a
diet low in tyrosine,

80, 149

— and Lewis, Howard B. The
metabolism of sulfur. XV. The
relation of the protein and cyst-
ine content of the diet to the
growth of the hair in the white
rat, 82, 485

— and —. XVI. Dietary fac-
tors in relation to the chemical
composition of the hair of the
young white rat, 82, 663

Likely, W. See HELLER, BREED-
LOVE, and LIKELY, 79, 275

- Limbach, Natalie.** See MUNT-
WYLER, LIMBACH, BILL, and
MYERS, 90, 607
- Lindow, C. W.** See ELVEHJEM
and LINDOW, 81, 435
- , Elvehjem, C. A., and Peter-
son, W. H. The copper con-
tent of plant and animal foods,
82, 465
- , Peterson, W. H., and Steen-
bock, H. The copper metabo-
lism of the rat, 84, 419
- Lineweaver, Hans.** Character-
istics of oxidation by *Azotobac-*
ter, 99, 575
- Ling, Schmorl M.** The deter-
mination of cholesterol in small
amounts of blood, 76, 361
- Link, Karl Paul, Angell, H. R.,**
and Walker, J. C. The isola-
tion of protocatechuic acid from
pigmented onion scales and its
significance in relation to dis-
ease resistance in onions,
81, 369
- , Dickson, Allan D., and Wal-
ker, J. C. Further observa-
tions on the occurrence of pro-
tocatechuic acid in pigmented
onion scales and its relation to
disease resistance in the onion,
84, 719
- and —. The preparation of
d-galacturonic acid from lemon
pectic acid, 86, 491
- and Nedden, Raymond. Im-
provements in the preparation
of *d*-galacturonic acid,
94, 307
- See NIEMANN and LINK,
95, 203
- See SCHOEFFEL and LINK,
95, 213
- and Walker, J. C. The isola-
tion of catechol from pig-
mented onion scales and its
significance in relation to dis-
ease resistance in onions,
100, 379
- See MORELL and LINK,
100, 385
- See SCHOEFFEL and LINK,
100, 397
- See NIEMANN and LINK,
100, 407
- Lipmann, Fritz A., and Levene,**
P. A. Serinephosphoric acid
obtained on hydrolysis of vi-
tellinic acid, 98, 109
- Little, Elizabeth G.** See COL-
LETT, RHEINBERGER, and LIT-
TLE, 100, 271
- Liu, S. K.** See HASTINGS, HAR-
KINS, and LIU, 94, 681
- Liu, Shih Hao.** See SENDROY
and LIU, 89, 133
- See VAN SLYKE, SENDROY,
and LIU, 95, 531, 547
- Livingston, A. E.** See FREEMAN,
LIVINGSTON, and RICHARDS,
87, 467
- Lloyd, R. W.** See MOORE,
LLOYD, and BURGET,
97, 345
- Lockwood, W. Wayne.** See DU
VIGNEAUD, FITCH, PEKAREK,
and LOCKWOOD, 94, 233
- Loeb, Leo, Lorberblatt, I., and**
Field, Madeleine E. Further
investigations concerning the
specific action of salts in the
extraction of urease from ame-
bocytes of *Limulus*, 78, 417
- See CLOSS, LOEB, and MAC-
KAY, 96, 585

- Loebel, Robert O.** See SHORR, LOEBEL, and RICHARDSON, 86, 529
- See RICHARDSON, SHORR, and LOEBEL, 86, 551
- Logan, Milan A.** An apparatus for the evaporation of liquids in a test-tube, 86, 761
- See FISKE and LOGAN, 93, 211
- Lohmann, Anne.** See BERGLUND, MEDES, and LOHMANN, 78, v
- See STENSTRÖM and LOHMANN, 79, 673
- London, E. S.** See LEVENE and LONDON, 81, 711
83, 793
- Long, C. N. H.** The effect of anesthesia on the recovery process in mammalian skeletal muscles, 77, 563
- and Grant, Rhoda. The mechanism of the recovery process after exercise in mammals, 87, lviii
- and —. The recovery process after exercise in the mammal. I. Glycogen resynthesis in the fasted rat, 89, 553
- See HILL, LONG, and SLIGHT, 92, lxxxi
- and Horsfall, F. L., Jr. The recovery process after exercise in the mammal. II. The conversion of infused *D*-lactic acid into muscle glycogen, 95, 715
- and Venning, Eleanor M. The alleged increase in plasma fats after the injection of epinephrine, 96, 397
- Long, M. Louisa.** See BISCHOFF, SAHYUN, and LONG, 81, 325
- See BISCHOFF and LONG, 84, 629
- See BISCHOFF, ULLMANN, HILL, and LONG, 85, 675
- See BISCHOFF and LONG, 87, 47
- See BISCHOFF, LONG, and HILL, 87, liv
90, 321
- See BISCHOFF and LONG, 95, 743
- and Bischoff, Fritz. A carbohydrate balance sheet for the adrenalinized fasting rat sacrificed in the recovery period, 98, 85
- Looney, Joseph M.** The analysis of liver extract, 78, xi
- Blood urea nitrogen by direct Nesslerization, 87, xxix
- The determination of blood urea nitrogen by direct Nesslerization, 88, 189
- A new method for the determination of albumin and globulin in blood serum, 97, xxvi
- The effect of the ingestion of tyrosine on the blood phenols and the blood uric acid as determined by the methods of Folin and of Benedict, 100, lxiv
- Lorberblatt, I.** See LOEB, LORBERBLATT, and FIELD, 78, 417
- Loring, Hubert S.** See DU VIGNEAUD, AUDRIETH, and LORING, 87, xxx

- and du Vigneaud, Vincent. The isolation and characterization of mesocystine, 97, xxiv
 - See DU VIGNEAUD, DORFMANN, and LORING, 98, 577
 - Lough, S. Allan. See LEWIS and LOUGH, 81, 285
 - and Lewis, Howard B. The metabolism of sulfur. XVIII. The distribution of urinary sulfur in the rabbit after the administration of monobromobenzene, 94, 739
 - Lowe, James T. See STEENBOCK, KLETZIEN, and HALPIN, 97, 249
 - Lucas, G. H. W. The decomposition of halogen-containing hydrocarbons in animals during anesthesia, 78, lxix
 - Lucia, Salvatore R. See GREENBERG, LUCIA, MACKEY, and TUFTS, 100, 139
 - Luck, James Murray. The estimation of amino acid nitrogen in animal tissues, 77, 1
 - The metabolism of amino acids, 77, 13
 - , Morrison, Gordon, and Wilbur, Leonard Fisk. The effect of insulin on the amino acid content of blood, 77, 151
 - See KIECH and LUCK, 77, 723
78, 257
 - The oxidation of dioxanthryl urea, a micromethod for determining urea, 79, 211
 - See ALLEN and LUCK, 82, 693
 - and Keeler, Leonarde. The blood chemistry of two species of rattlesnakes, *Crotalus atrox* and *Crotalus oregonus*, 82, 703
 - See SAHYUN and LUCK, 85, 1
 - See CADY and LUCK, 86, 743
 - See KIECH, LUCK, and SMITH, 90, 677
 - See DANIELS and LUCK, 91, 119
 - and Amsden, Maurice R. Stimulation of endogenous protein metabolism by amino acids, 92, lxxv
 - See KIECH and LUCK, 94, 433
 - See ARNOLD and LUCK, 99, 677
 - Lusk, Graham. See CHAMBERS and LUSK, 85, 611
 - See DANN, CHAMBERS, and LUSK, 94, 511
 - Lyman, J. F. See BOYD, CRUM, and LYMAN, 95, 29
- M
- Macallum, A. Bruce. See LAUGHTON, MACALLUM, RABINOWITCH, and WATSON, 92, xx
 - MacArthur, Edith H. Fat metabolism. I. A study of the rate of digestion of fats as determined by the chylomicrons of the blood, 87, 299
 - MacCorquodale, D. W. See THAYER and MACCORQUODALE, 97, liii

MacCorquodale, D. W.—*continued.*

—, **Thayer, Sidney A.**, and **Doisy, Edward A.** On the purification and constitution of theolol, 99, 327

— See **LEVIN, MACCORQUODALE, THAYER, and DOISY**, 100, lxii

MacKay, Eaton M. See **HAWKINS, MACKAY, and VAN SLYKE**, 78, xxiii

— and **MacKay, Lois Lockard.** Age and the effect of unusual diets, 86, 765

— and **Bergman, H. C.** The relation between glycogen and water storage in the liver, 96, 373

— See **CLOSS, LOEB, and MACKAY**, 96, 585

— The distribution of glucose in human blood, 97, 685

MacKay, Lois Lockard. See **MACKAY and MACKAY**, 86, 765

Mackey, Myrtle A. See **GREENBERG and MACKAY**, 96, 419
98, 765
99, 19

— See **GREENBERG, LUCIA, MACKAY, and TUFTS**, 100, 139

MacNair, Walter A. See **BILLS, HONEYWELL, and MACNAIR**, 76, 251

Macy, Icie G. See **OUTHOUSE, MACY, and BREKKE**, 78, 129

—, **Hunscher, Helen A.**, **Nims, Betty**, and **McCosh, Sylvia Schimmel.** Metabolism of women during the reproductive

cycle. I. Calcium and phosphorus utilization in pregnancy, 86, 17

—, —, **McCosh, Sylvia Schimmel**, and **Nims, Betty.** Metabolism of women during the reproductive cycle. III. Calcium, phosphorus, and nitrogen utilization in lactation before and after supplementing the usual home diets with cod liver oil and yeast, 86, 59

— See **MCCOSH, MACY, and HUNSCHER**, 90, 1

— See **DONELSON, NIMS, HUNSCHER, and MACY**, 91, 675

— See **HUNSCHER, COPE, NOLL, MACY, COOLEY, PENBERTHY, and ARMSTRONG**, 97, lxiv

— See **HUNSCHER, DONELSON, NIMS, KENYON, and MACY**, 99, 507

— See **HUNSCHER, COPE, NOLL, and MACY**, 100, lv

Maddock, Stephen J. See **TRIMBLE and MADDOCK**, 78, 323
81, 595

— See **TRIMBLE, CAREY, and MADDOCK**, 100, 125

Madsen, L. L. See **MCCAY, MADSEN, and MAYNARD**, 100, lxviii

Magill, Mary A. See **BRODE and MAGILL**, 92, 87

Major, Ralph H. See **WEBER, NANNINGA, and MAJOR**, 97, xcvi

Mallon, Marguerite G., **Jordan, Ruth**, and **Johnson, Margaret.** A note on the calcium retention on a high and low fat diet, 88, 163

- Malmros, Haqvin.** See FOLIN and MALMROS, 83, 115, 121
- Man, Evelyn B., and Gildea, Edwin F.** A modification of the Stoddard and Drury titrimetric method for the determination of the fatty acids in blood serum, 99, 43
- and —. The effect of the ingestion of a large amount of fat and of a balanced meal on the blood lipids of normal man, 99, 61
- Mann, Frank C.** See BOLLMAN, MANN, and WILHELMJ, 93, 83
- Manske, Richard H. F.** The occurrence of *D*-mannose in seaweed and the separation of *L*-fucose and *D*-mannose, 86, 571
- Marcus, Joseph Keats.** A new process for the separation of the vitamin fraction from cod liver oil, 80, 9
- The destructive action of finely divided solids on vitamin A, 90, 507
- Marenzi, A. D.** See FOLIN and MARENZI, 83, 89, 103, 109
- Margaria, R.** See EDWARDS, MARGARIA, and DILL, 100, xxxviii
- , Edwards, H. T., Henderson, L. J., and Dill, D. B. The possible mechanisms of contracting and paying the oxygen debt and the rôle of lactic acid in muscular contraction, 100, lxxv
- Marine, David, Baumann, Emil J., and Webster, Bruce.** The relative amounts of iodine-absorbing (reducing) material in various plants, 89, 213
- Marker, R. E.** See LEVENE and MARKER, 90, 669
- 91, 77, 405, 687, 761
- 92, 455
- See LEVENE, STEIGER, and MARKER, 93, 605
- See LEVENE and MARKER, 93, 749
- 95, 1, 153
- 97, 379, 563
- 98, 1
- 99, 321
- See LEVENE, MARKER, and ROTHEN, 100, 589
- See LEVENE and MARKER, 100, 685, 769
- Markley, K. S., Hendricks, Sterling B., and Sando, Charles E.** Further studies on the wax-like coating of apples, 98, 103
- Marsh, Gordon.** Winkler titration in methylene blue media, 95, 25
- Martin, J. Holmes.** See ERIKSON, BOYDEN, MARTIN, and INSKO, 100, xl
- Marvel, Carl S.** See CORLEY and MARVEL, 82, 77
- See BERG, ROSE, and MARVEL, 85, 207, 219
- Maslow, Herman L.** See SHELLING and MASLOW, 78, 661
- Mason, Eleanor D.** See REDFIELD and MASON, 77, 451
- Mason, Harold L.** See KENDALL, MCKENZIE, and MASON, 84, 657

Mason, Harold L.—*continued.*

— A study of glutathione. II.

The determination of reduced glutathione in tissues,

86, 623

— See KENDALL, MASON, and McKENZIE,

87, 55, xli

88, 409

— A study of glutathione. V.

The spontaneous cleavage of glutathione in aqueous solution,

90, 25

— A study of glutathione. VI.

The preparation of oxidized glutathione,

90, 409

— See KENDALL, MASON, McKENZIE, and MYERS,

100, lix

Mason, M. F. See ROBINSON, HUFFMAN, and MASON,

84, 257

Massengale, O. N. See RUSSELL, MASSENGALE, and HOWARD,

78, xxi

80, 155

— See BILLS, MASSENGALE, and PRICKETT,

87, 259

— and Nussmeier, Mildred. The action of activated ergosterol in the chicken. I. The effect on the calcium and inorganic phosphorus of the blood serum,

87, 415

— and —. II. The prevention of leg weakness,

87, 423

—, Bills, Charles E., and Prickett, Paul S. Factors determining the ergosterol content of yeast.

II. Carbohydrate sources,

94, 213

— See McDONALD and MASSENGALE,

99, 79

Mathieson, Don. See McCLENDON, MATHIESON, and HYNES,

78, xlv

Matthews, C. W. See TURNER and MATTHEWS,

92, lxxxviii

Mattill, H. A. Antioxidants and the autoxidation of fats,

90, 141

— See OLCOVICH and MATTILL,

91, 105

92, xxxi

— See OLCOTT and MATTILL,

93, 59, 65

— See KUYPER and MATTILL,

100, lxi

Mattison, Inez H. See LEWIS and MATTISON,

78, lxxvi

— See HILL and MATTISON,

82, 679

Maxwell, L. C. See BISCHOFF and MAXWELL,

79, 5

— See BISCHOFF, MAXWELL, and HILL,

90, 331

— See BISCHOFF, MAXWELL, and ULLMANN,

92, lxxx

97, cii

May, Orville E. See HERRICK and MAY,

77, 185

Maynard, L. A., Harrison, E. S., and McCay, C. M. The changes in the total fatty acids, phospholipid fatty acids, and cholesterol of the blood during the lactation cycle,

92, 263

— See McCAY and MAYNARD,

92, 273

— See McCAY, MADSEN, and MAYNARD,

100, lxxviii

McAlister, Edward D. See WILLIAMS, McALISTER, and ROEHM,

83, 315

- McAmis, Ava Josephine, Anderson, William E., and Mendel, Lafayette B.** Growth of rats on "fat-free" diets, 82, 247
- McCann, D. C.** See **OLCOTT** and **MCCANN**, 94, 185
- McCarthy, Mary.** See **EXTON** and **ROSE**, 97, xxvii
- McCay, C. M.** The nutritional requirements of brook trout, 87, v
- Phosphorus distribution, sugar, and hemoglobin in the blood of fish, eels, and turtles, 90, 497
- See **KOZLOWSKA** and **MCCAY**, 92, lxiii
- See **MAYNARD**, **HARRISON**, and **MCCAY**, 92, 263
- and **Maynard, L. A.** The interrelationship between the dietary fat and the phosphorus distribution in the blood of lactating cows, 92, 273
- An insect test for vitamin B fractions, 100, lxvii
- , **Madsen, L. L.**, and **Maynard, L. A.** Further studies of synthetic diets for Herbivora, 100, lxviii
- McClellan, Walter S.** The quantitative estimation of dihydroxyacetone in blood and urine, 76, 481
- , **Biasotti, A.**, and **Hannon, R. Roger.** Clinical calorimetry. XLII. A comparison of the effect of glucose and dihydroxyacetone on metabolism, 78, 719
- , **Spencer, Henry J.**, **Falk, Emil A.**, and **Du Bois, Eugene F.** Clinical calorimetry. XLIII. A comparison of the thresholds of ketosis in diabetes, epilepsy, and obesity, 80, 639
- and **Toscani, Vincent.** Clinical calorimetry. XLIV. Changes in the rate of excretion of acetone bodies during the twenty-four hours, 80, 653
- and **Du Bois, Eugene F.** Clinical calorimetry. XLV. Prolonged meat diets with a study of kidney function and ketosis, 87, 651
- , **Rupp, Virgil R.**, and **Toscani, Vincent.** Clinical calorimetry. XLVI. Prolonged meat diets with a study of the metabolism of nitrogen, calcium, and phosphorus, 87, 669
- , **Spencer, Henry J.**, and **Falk, Emil A.** Clinical calorimetry. XLVII. Prolonged meat diets with a study of the respiratory metabolism, 93, 419
- and **Hannon, R. Roger.** Clinical calorimetry. XLVIII. Nitrogen equilibrium with a low protein diet, 95, 327
- McClendon, J. F.**, **Anderson, Hilding C.**, **Steggerda, F. R.**, **Conklin, Claire**, and **Whitaker, Mildred.** A simple respiration apparatus for determination of oxygen and carbon dioxide in indirect calorimetry, 77, 413
- , **Mathieson, Don**, and **Hynes, John.** The determination of iodine in fat and fatty foods, 78, xlv
- Carbohydrate, volatile fatty acids, water retention, and clinical symptoms, 87, vii

McClendon, J. F.—*continued*.

— The relation of glucose to water retention, 92, xix

— See HEMINGWAY and McCLENDON, 97, xcix

McClure, C. W., and Huntsinger, Mildred E. Studies in fat metabolism. I. The influence on blood lipids of single food-stuffs, 76, 1

McClure, F. J., and Mitchell, H. H. The effect of fluorine on the calcium metabolism of albino rats and the composition of the bones, 90, 297

McCluskey, K. Lucille. The fading of tropeolin OO in the titration of organic acids in urine, 90, 197

McCollum, E. V. See TANGE and McCOLLUM, 76, 445

—, Rask, O. S., and Becker, J. Ernestine. A study of the possible rôle of aluminum compounds in animal and plant physiology, 77, 753

— See ADAMS and McCOLLUM, 78, 495

—, Rask, O. S., and Becker, J. Ernestine. Do the spectrograms of Kahlenberg and Closs demonstrate the presence of aluminum in biological matter? 85, 779

— and Orent, Elsa R. Effects on the rat of deprivation of magnesium, 92, xxx

— See ORENT and McCOLLUM, 92, 651

— See KRUSE, ORENT, and McCOLLUM, 96, 519
97, l_iii

— See ORENT and McCOLLUM, 98, 101

— See KRUSE, ORENT, and McCOLLUM, 100, 603

McCollum, Ella L. See ROSE and McCOLLUM, 78, 535, 549

McCosh, Sylvia Schimmel. See MACY, HUNSCHER, NIMS, and MCCOSH, 86, 17

— See MACY, HUNSCHER, MCCOSH, and NIMS, 86, 59

—, Macy, Icie G., and Hunscher, Helen A. Human milk studies. VI. Vitamin potency as influenced by supplementing the maternal diet with yeast, 90, 1

McCullagh, D. Roy. The technique and interpretation of blood phosphate curves after glucose administration, 92, xvi

— The distribution of androsten (male sex hormone) in the male, 97, xlvii

McDonald, Francis G. See RUSSELL and McDONALD, 84, 463
87, iv

— See BILLS, McDONALD, and COX, 87, liii

— See BILLS and McDONALD, 88, 337

— and Bills, Charles E. The isomerization of ergosterol with fullers' earth, 88, 601

— See BILLS, McDONALD, BEMILLER, STEEL, and NUSSMEIER, 93, 775

— See BILLS and McDONALD, 96, 189

- and Massengale, O. N. The antirickettic potency of eggs from hens receiving massive doses of activated ergosterol, 99, 79
- The stability of carotene in ethyl esters of fatty acids, liver, and vegetable oils, 100, lxix
- McEllroy, William S. See HERRON and McELLROY, 100, liii
- McGavran, Joyce. See COLLETT, CLARKE, and McGAVRAN, 82, 435
- and Rheinberger, Margaret. On the question of the specificity of the intracellular dehydrogenases. IV. The effect of hydrogen ion concentration, 100, 267
- McGrew, Ralph V. See CONANT and McGREW, 85, 421
- McGuire, Grace. See FALK and MCGUIRE, 97, 651
- McHargue, J. S., Healy, D. J., and Hill, Edgar S. The relation of copper to the hemoglobin content of rat blood. Preliminary report, 78, 637
- McHenry, E. W., and Gavin, Gertrude. Further studies on histaminase, 92, lxxv
- McIntosh, John F. See HASTINGS, SENDROY, McINTOSH, and VAN SLYKE, 79, 193
- McIntyre, A. R. The concentrations and distribution of potassium in the serum and cells in the blood of normal unanesthetized dogs, 98, 115
- McKenzie, Bernard F. See KENDALL, MCKENZIE, and MASON, 84, 657
- See KENDALL, MASON, and MCKENZIE, 87, 55, xli 88, 409
- See KENDALL, MASON, MCKENZIE, and MYERS, 100, lix
- McKenzie, Margaret R. See KRAMER, SHEAR, and MCKENZIE, 82, 555
- McKhann, C. F. See GAMBLE, MCKHANN, and BUTLER, 97, lvii
- McKinnis, Ronald B., and King, C. G. The nature of vitamin C. A study of its electrical transference, 87, 615
- McLaughlin, Laura. The relation of vitamin A content to size of leaves, 84, 249
- McMeekin, Thomas L. The effect of neutral salts on the hydrolysis of proteins by pepsin, 78, xliii
- See COHN, McMEEKIN, and MINOT, 87, xlix
- See COHN, McMEEKIN, ED-SALL, and WEARE, 92, xlv
- See COHN, McMEEKIN, ED-SALL, and BLANCHARD, 100, xxviii
- Medes, Grace. See BERGLUND, MEDES, and LOHMANN, 78, v
- A hitherto undescribed in-born (?) error of metabolism related to tyrosine, 87, xi
- Bence-Jones protein. I. Chemical composition, 100, lxix
- Medlar, E. M. See BLATHERWICK, MEDLAR, CONNOLLY, and BRADSHAW, 92, lxxxiv

Medlar, E. M.—*continued.*

— See BLATHERWICK, MEDLAR,
BRADSHAW, POST, and SAWYER,

97, xxxiii

100, xviii

Meeker, Dorothy. See HAMIL-
TON, KAJDI, and MEEKER,

88, 331

**Meeker, George H., and Rein-
hold, John G.** Titrimetric
quinhydrone electrodes. A
comparison with the hydrogen
electrode for hydron concentra-
tion determinations in plasma,
whole blood, and other biologi-
cal fluids,

77, 505

Meigs, Edward B. See CARY and
MEIGS,

78, 399

Melchionna, Robert. The effect
of theelol on the blood pressure,
heart rate, and respiratory rate,

91, 653

Mendel, Lafayette B. See AN-
DERSON and MENDEL,

76, 729

— See MCAMIS, ANDERSON,
and MENDEL,

82, 247

— See GODDARD and MENDEL,

82, 447

— See FRISCH, MENDEL, and
PETERS,

84, 167

— See REED, YAMAGUCHI, AN-
DERSON, and MENDEL,

87, 147

— See REED, ANDERSON, and
MENDEL,

96, 313

Menschick, W. See PAGE and
MENSCHICK,

97, 359

**Merritt, H. Houston, and Bauer,
Walter.** The equilibrium be-
tween cerebrospinal fluid and
blood plasma. III. The dis-
tribution of calcium and phos-

phorus between cerebrospinal
fluid and blood serum,

90, 215

— and —. IV. The calcium con-
tent of serum, cerebrospinal
fluid, and aqueous humor at
different levels of parathyroid
activity,

90, 233

Metzger, Nannette. See BAU-
MANN, KURLAND, and METZ-
GER,

94, 383

— See BAUMANN and METZ-
GER,

97, xc

98, 405

— See BAUMANN, SPRINSON,
and METZGER,

100, xiii

**Meyer, Arthur E., and Eggert,
Carl.** Iron and copper in liver
and liver extracts,

99, 265

Meyer, Curtis E. See DU VI-
GNEAUD and MEYER,

94, 641

98, 295

99, 143

Meyer, G. M. See LEVENE and
MEYER,

76, 513, 809

78, 363

79, 357

— See LEVENE, MEYER, and
RAYMOND,

91, 497

— See LEVENE and MEYER,

92, 257

Michaelis, L., and Flexner, Louis

B. Oxidation-reduction sys-
tems of biological significance.

I. The reduction potential of
cysteine: its measurement and
significance,

79, 689

— and Barron, E. S. Guzman.

Oxidation-reduction systems of
biological significance. II.

Reducing effect of cysteine in-
duced by free metals,

81, 29

- See BARRON, FLEXNER, and MICHAELIS, 81, 743
- and Barron, E. S. Guzman. Oxidation-reduction systems of biological significance. IV. Comparative study of the complexes of cysteine with the metals of the iron group, 83, 191
- and Yamaguchi, S. Oxidation-reduction systems of biological significance. V. The composition of the oxidized cobalt complex of cysteine. A colorimetric method for the microanalysis of cobalt, 83, 367
- Oxidation-reduction systems of biological significance. VI. The mechanism of the catalytic effect of iron on the oxidation of cysteine, 84, 777
- Diethylbarbiturate buffer, 87, 33
- and Eagle, H. Some redox indicators, 87, 713
- and Friedheim, E. Potentiometric studies on complex iron systems, 91, 343
- See FRIEDHEIM and MICHAELIS, 91, 355
- Rosinduline as oxidation-reduction indicator, 91, 369
- The formation of semiquinones as intermediary reduction products from pyocyanine and some other dyestuffs, 92, 211
- and Smythe, C. V. The correlation between rate of oxidation and potential in iron systems, 94, 329
- Theory of the reversible two-step oxidation, 96, 703
- Mikeska, L. A. See LEVENE and MIKESKA, 84, 571
- See LEVENE, MIKESKA, and MORI, 85, 785
- See LEVENE, MIKESKA, and PASSOTH, 88, 27
- See LEVENE and MIKESKA, 88, 791
- Milhorat, Adolph T., and Chambers, William H. The effect of insulin on protein metabolism, 77, 595
- See CHAMBERS and MILHORAT, 77, 603
- See DEUEL and MILHORAT, 78, 299
- Miller, C. Phillip. See BARRON and MILLER, 97, 691
- See BOOR and MILLER, 100, xix
- Miller, Carey D., and Abel, Marjorie G. Adsorption of vitamin B (B_1) by plant tissue. I. Adsorption of vitamin B (B_1) by *Brassica chinensis* when pickled with salt and rice bran, 100, 731
- Miller, E. H. See SHERMAN, QUINN, DAY, and MILLER, 78, 293
- Miller, E. J. See CHIBNALL and MILLER, 90, 189
- Miller, Edgar G., Jr. See GRAYZEL and MILLER, 76, 423
- Miller, Elmer S. See BURR, BURR, and MILLER, 92, xxxvi
- 97, 1
- Miller, Glennard E. See LIGHT, MILLER, and FREY, 84, 487
- 92, 47

- Miller, H. K., and Andrews, James C. The optical activity of *d*-arginine, 87, 435
 —. See DRABKIN and MILLER, 90, 531
 92, lxi
 93, 39
- Miller, Lila. See MITCHELL and MILLER, 85, 355
 92, 421
- Miller, Lloyd C. Variations in the plasma phospholipid of amygalized dogs following epinephrine or insulin, 100, lxx
- Miller, Mabel M., and Lewis, Howard B. Pentose metabolism. I. The rate of absorption of *d*-xylose and the formation of glycogen in the organism of the white rat after oral administration of *d*-xylose, 98, 133
 — and —. II. The pentose content of the tissues of the white rat after the oral administration of *d*-xylose, 98, 141
- Millet, Horace. Measurements of the pH of normal, fetal, and neoplastic tissues by means of the glass electrode, 78, 281
 —. The reaction of the blood in cancer, 82, 263
 —. The excretion of lead in urine, 83, 265
- Milner, Harold W. See SMITH and SPOEHR, 86, 755
- Minot, George R. See COHN, MINOT, ALLES, and SALTER, 77, 325
 —. See COHN, McMECKIN, and MINOT, 87, xlix
- Mirsky, A. E., and Anson, M. L. A description of the glass electrode and its use in measuring hydrogen ion concentration, 81, 581
- Misch, Alvina. See MORGAN and GARRISON, 85, 687
- Mitchell, H. H., and Kruger, John Henry. The effect of muscular work upon the endogenous catabolism of the tissues, 76, 55
 —. See BEADLES, BRAMAN, and MITCHELL, 88, 615, 623
 —. See McCLURE and MITCHELL, 90, 297
 — and Smuts, D. B. The amino acid deficiencies of beef, wheat, corn, oats, and soy beans for growth in the white rat, 95, 263
 —. See SMUTS, MITCHELL, and HAMILTON, 95, 283
- Mitchell, Helen S., and Miller, Lila. Inorganic elements of spinach in the treatment of nutritional anemia, 85, 355
 — and —. Studies in nutritional anemia. Quantitative variations in iron, copper, and manganese supplements, 92, 421
 —. Factors influencing anemia development in young rats, 97, xv
- Mitchell, Philip H. Potassium concentration in muscle cells as influenced by the Donnan equilibrium, 78, x
- Mitchell, Stotherd. Hydrolysis of the *d*-glucosides of *d*- and *l*-methyl-*n*-hexylcarbinol with emulsin, 82, 727

- Miyamoto, Sadaichi, and Schmidt, Carl L. A. Compound amino acids, 87, 327
- and —. The apparent dissociation constants of phenylalanine and of dihydroxyphenylalanine and the apparent free energy and entropy changes of certain amino acids due to ionization, 90, 165
- and —. Transference and conductivity studies on solutions of certain proteins and amino acids with special reference to the formation of complex ions between the alkaline earth elements and certain proteins, 99, 335
- Moberley, Olga. See HARDING and MOBERLEY, 89, 535
- Moeller, Otto. See JONES and MOELLER, 79, 429
- Moerke, Georgine A. See RISING, HICKS, and MOERKE, 89, 1
- Monaghan, Betty R., and Schmitt, Francis O. The effects of carotene and of vitamin A on the oxidation of linoleic acid, 96, 387
- . The effect of dietary deficiencies on phospholipid metabolism, 98, 21
- Monroe, C. F. See KRAUSS and MONROE, 89, 581
- Montgomery, Hugh. See REDFIELD, COOLIDGE, and MONTGOMERY, 76, 197
- . See BUTLER and MONTGOMERY, 99, 173
- Montgomery, Mary F. See KERN, MONTGOMERY, and STILL, 93, 365
- Moore, Chester N. See KNUDSON and MOORE, 78, xix 81, 49
- Moore, David D., Lavietes, Paul H., Wakeman, A. Maurice, and Peters, John P. The effect of ingested urea on nitrogen metabolism, 91, 373
- Moore, Philip H., Lloyd, R. W., and Burget, G. E. The copper reduction values of mannose under certain fixed conditions, 97, 345
- Morell, Sam, and Link, Karl Paul. The methylglycosides of the naturally occurring hexuronic acids. I. The preparation of methyl-*d*-galacturonide, 100, 385
- Morgan, Agnes Fay, and Field, Anna. The effect of drying and of sulfur dioxide upon the antiscorbutic property of fruits, 82, 579
- , Strauch, Clara M., and Blume, Florence. The nature and biological availability of almond carbohydrates, 85, 385
- and Garrison, E. Alta. The effect of vitamin D and of reaction of diet upon response to parathyroid extract, 85, 687
- and Field, Anna. Vitamins in dried fruits. II. The effect of drying and of sulfur dioxide upon the vitamin A content of fruits, 88, 9
- . The effect of heat upon the biological value of cereal proteins and casein, 90, 771
- and Garrison, E. Alta. The effect of the calcium and phos-

Morgan, Agnes Fay—*continued.*

phorus content of the diet and of vitamin D upon response to parathyroid extract, 92, xciv

—, **Kimmel, Louise, Thomas, Rachel, and Samisch, Zdenka.** The effect of moderate doses of viosterol and of parathyroid extract upon bone composition, 100, lxxi

Morgan, J. C., and King, Earl J. A method for the microgravimetric determination of silica in tissue, 95, 613

Morgan, William O. P. See **HENDERSON, DILL, EDWARDS, and MORGAN,** 90, 697

Morgulis, Sergius, and Beber, M. Studies on the effect of temperature on the catalase reaction. VI. Heat inactivation of catalase at different hydrogen ion concentrations, 77, 115

— Sulfur metabolism and partition of sulfur in the urine of fasting dogs, 77, 627

— and **Perley, Anne Macgregor.** A note on the Kramer-Tisdall potassium method, 77, 647

— A note on the creatine-creatinine excretion during fasting, 83, 299

— Studies on the inactivation of catalase. II. Inactivation by ultra-violet radiation at different hydrogen ion concentrations, 86, 75

— and **Perley, Anne Macgregor.** Studies on cerebrospinal fluid and serum calcium, with special reference to the parathyroid hormone, 88, 169

— and **Green, David E.** Effect of sulfhydryl compounds on the rate of regeneration in *Podarke obscura*, 92, xciv

— Studies on the inactivation of catalase. III. Destruction of catalase by hydrogen peroxide, 92, 377

— Studies on the chemical composition of bone ash, 93, 455

— and **Pinto, Sherman.** Studies on blood glycolysis. I. Effect of arsenate, 95, 621

— and **Hemphill, Martha.** An iodometric micromethod for the determination of sulfates in biological material, 96, 573

— and **Pinto, Sherman.** Studies on blood glycolysis. I. Effect of arsenate. A reply, 98, 385

Mori, T. See **LEVENE and MORI,** 78, 1

81, 215

83, 803

84, 49

— See **LEVENE, MIKESKA, and MORI,** 85, 785

Morrell, Joseph A., Varley, J. H., Hart, G. W., and Schwoch, G. Some effects of myrtomel in the diabetic dog, 78, lxviii

Morrison, C. A. See **PIERCE,** 98, 509

Morrison, Dempsie B. See **MYERS, MULL, and MORRISON,** 78, xi, 595

— See **MYERS and MORRISON,** 78, 615

— and **Nash, Thomas P., Jr.** The copper content of infant livers, 87, xi

88, 479

- The oxygen capacity of hemoglobin of human blood, 100, lxxii
- Morrison, Gordon. See LUCK, MORRISON, and WILBUR, 77, 151
- Morse, Fred W. The iodine content of Cape Cod cranberries, 79, 409
- The mineral constituents of cranberries, 81, 77
- Morse, J. K. See ROSEBERRY, HASTINGS, and MORSE, 90, 395
- Morse, Minerva. See SCHLUTZ and MORSE, 97, lix
- See SCHLUTZ, HASTINGS, and MORSE, 100, lxxxv
- Morse, Withrow. See TITHERINGTON and MORSE, 78, xvi
- Chemistry of the integument. I. Protein behavior immediately post mortem, 92, xxxix
- IV. Collagen, 97, xxx
- V. A new color reaction for hydroxyproline and its use in distinguishing the scleroproteins, 100, 373
- VI. The lability of hydroxyproline in the molecule of proteins, 100, lxxiii
- Mortimer, B. See RONY, MORTIMER, and IVY, 96, 737
- Mosenthal, Herman O., and Brugger, Maurice. The effect of glucose ingestion on the urea, total non-protein nitrogen, and chloride concentration in the blood, 97, lxxxiii
- Mosher, H. H. Simultaneous study of constituents of urine and perspiration, 99, 781
- Mosier, E. C. See CHRISTMAN and MOSIER, 83, 11
- Mugrage, Edward R. See ORTEN, UNDERHILL, MUGRAGE, and LEWIS, 96, 11
99, 457, 465
- See UNDERHILL, ORTEN, MUGRAGE, and LEWIS, 99, 469
- Mulder, Arthur G., Phillips, Irwin E., and Visscher, Maurice B. The urinary excretion of inorganic phosphate in fasting with particular reference to the effect of exercise, 98, 269
- Mull, James W. See MYERS, MULL, and MORRISON, 78, xi, 595
- See MYERS and MULL, 78, 605, 625
- and Bill, Arthur H. Normal range of serum calcium and inorganic phosphorus in women, 97, lxxv
- and Kinney, F. M. Changes in serum calcium and phosphorus and in the teeth during pregnancy, 100, lxxiii
- Muller, Gulli Lindh. The serum cholesterol, lecithin phosphorus, and fatty acids of pigeons fed beef tissues, 84, 345
- Munday, Betty. See SEIBERT and MUNDAY, 87, xvii
92, lxxvii
- and Seibert, Florence B. A comparison of the Shaffer-Hartmann and Hagedorn-Jen-

- sen methods in determining polysaccharide in tuberculin, 100, 277
- Munford, Samuel A. See HUBBARD, MUNFORD, TYNER, and ALLISON, 92, xxix
- Muntwyler, Edward. See MYERS and MUNTWYLER, 78, 225, 243
- and Way, Charles T. Alkalosis observed in cases with persistent hypertension, 87, lv
- , Limbach, Natalie, Bill, Arthur H., and Myers, Victor C. The acid-base equilibrium of the blood in pathological conditions. I. Changes observed in the toxemias of pregnancy, 90, 607
- and Myers, Victor C. Sources of error in employing the Cullen correction with the colorimetric method of estimating plasma pH, 92, xlviii
- , Rose, Embree R., and Myers, Victor C. The distribution of chloride and bicarbonate between plasma and cells in the blood of various pathological subjects, 92, xc
- , Myers, Victor C., and Way, Charles T. The distribution of chloride and bicarbonate between plasma and cells in the blood of various pathological conditions, 92, 721
- , Way, Charles T., and Pomerene, Elizabeth. A comparison of the chloride and bicarbonate concentrations between plasma and spinal fluid and plasma and ascitic fluid in reference to the Donnan equilibrium, 92, 733
- and Binns, Dorothy. The effect of cyanide on the respiration of rat liver and kidney, 97, lxxviii
- See MYERS, MUNTWYLER, and BILL, 98, 253, 267
- von Muralt, Alexander L., and Edsall, John T. Studies in the physical chemistry of muscle globulin. III. The anisotropy of myosin and the angle of isocline, 89, 315
- and —. IV. The anisotropy of myosin and double refraction of flow, 89, 351
- Murlin, John R. See PIERCE, NASSET, and MURLIN, 92, lxxvi
- 97, xlii
- Murphy, F. J. See COX, DODDS, WIGMAN, and MURPHY, 92, xi
- Murrell, F. C. See WESSON and MURRELL, 100, cii
- Muschel, Anna. Note on the fractionation of serum proteins by means of ammonium sulfate, 78, 715
- Musgrave, Forrest F. See YOUNG and MUSGRAVE, 87, xvi
- 92, li
- Myers, C. S. See KENDALL, MASON, MCKENZIE, and MYERS, 100, lix
- Myers, Victor C., and Wardell, Emma L. The influence of the ingestion of methyl xanthines on the excretion of uric acid, 77, 697

- and Muntwyler, Edward. The colorimetric estimation of the hydrogen ion concentration of urine, 78, 225
- and —. The colorimetric estimation of the hydrogen ion concentration of blood, 78, 243
- , Mull, James W., and Morrison, Dempsey B. On the presence of aluminum in animal tissues, 78, xi
- and Killian, John A. The solubility in the stomach and duodenum of aluminum compounds found in baking powder residues, 78, 591
- , Mull, James W., and Morrison, Dempsey B. The estimation of aluminum in animal tissues, 78, 595
- and —. The influence of the administration of aluminum upon the aluminum content of the tissues, and upon the growth and reproduction of rats, 78, 605
- and Morrison, Dempsey B. The influence of the administration of aluminum upon the aluminum content of the tissues of the dog, 78, 615
- and Mull, James W. The aluminum content of human autopsy tissue, 78, 625
- . See PFIFFNER and MYERS, 87, 345
- . See BEARD and MYERS, 87, xxxix
- . See MUNTWYLER, LIMBACH, BILL, and MYERS, 90, 607
- . See MUNTWYLER and MYERS, 92, xlviii
- . See BEARD and MYERS, 92, lxii
- . See MUNTWYLER, ROSE, and MYERS, 92, xc
- . See MUNTWYLER, MYERS, and WAY, 92, 721
- . See BEARD and MYERS, 94, 71
- and Beard, Howard H. Studies in the nutritional anemia of the rat. II. Influence of iron plus supplements of other inorganic elements upon blood regeneration, 94, 89
- . See BEARD, RAFFERTY, and MYERS, 94, 111
- , Beard, Howard H., and Barnes, Broda O. Studies in the nutritional anemia of the rat. IV. The production of hemoglobinemia and polycythemia in normal animals by means of inorganic elements, 94, 117
- . See BEARD, BAKER, and MYERS, 94, 123
- . See HANZAL and MYERS, 97, lxix
- . See ANDES and MYERS, 97, cix
- , Muntwyler, Edward, and Bill, Arthur H. The acid-base balance disturbance of pregnancy, 98, 253
- , —, and —. The alleged alkalosis in pregnancy. A reply to the paper of Kydd and Peters, 98, 267
- and Reid, Eric. Studies on animal diastases. III. A comparison of several different

Myers, Victor C.—*continued.*

- methods for the quantitative estimation of diastase in blood, 99, 595
- See REID and MYERS, 99, 607
- See REID, QUIGLEY, and MYERS, 99, 615
- See BING, SAURWEIN, and MYERS, 100, xv
- See EVELETH and MYERS, 100, xlii

N

- Nahum, L. H.** See HIMWICH, KOSKOFF, and NAHUM, 85, 571
- See HIMWICH, CHAMBERS, KOSKOFF, and NAHUM, 90, 417
- Naiman, Barnet.** See HARROW, NAIMAN, and FUNK, 100, lii
- Nanninga, J. B.** See WEBER, NANNINGA, and MAJOR, 97, xcvi
- Nash, Thomas P., Jr.** See BENEDICT and NASH, 82, 673
- On the mechanism of phlorhizin diabetes. III. The effect of phlorhizin upon glycogen storage by dogs with ligated ureters, 83, 139
- See MORRISON and NASH, 87, xl
- 88, 479
- and Williams, Edward F., Jr. Is blood protein amide nitrogen a source of urinary ammonia? 94, 783
- See HARNED and NASH, 97, li, 443
- See WILLIAMS and NASH, 100, 515, 737

Nasset, E. S., and Pierce, H. B.

- The influence of yeast on nitrogen retention in normal and depancreatized dogs, 87, xli
- See PIERCE, NASSET, and MURLIN, 92, lxxvi
- 97, xlii
- Navez, Albert E., and Rubenstein, Boris B.** Starch hydrolysis as affected by polarized light, 80, 503
- and —. Starch hydrolysis as affected by light. II, 95, 645
- Nedden, Raymond.** See LINK and NEDDEN, 94, 307
- Neill, James M.** See VAN SLYKE, SENDROY, HASTINGS, and NEILL, 78, 765
- Nelson, C. Ferdinand, and Lehnher, E. R.** The determination of lactic acid in blood, 78, xlix
- and Cole, W. M. The nitrogen content of blood, 92, xxviii
- Nelson, E. M., and Jones, D. Breese.** Observations bearing on the determination of vitamin A, 80, 215
- and —. Nutrition studies with cotton seed demonstrating the toxicity of gossypol to the rat, 87, xlvii
- See JONES and NELSON, 91, 705
- , Walker, Reed, and Jones, D. Breese. Determination of vitamin A by a preventive method, 92, vi
- , —, and —. The rate of transfer of ingested vitamin A to the liver of the rat, 97, vi

- . A report on the development, preparation, and distribution of the international vitamin standards, 100, lxxiv
- Nelson, J. M., and Papadakis, Philippos E. Inactivation of invertase and raffinase by heat, 80, 163
- and Palmer, A. H. Diffusion of yeast invertase through collodion membranes, 87, 1
- and — . Some properties of yeast invertase, 92, lxxviii
- Nelson, P. Mabel. See HOUSE, NELSON, and HABER, 81, 495
- . See IRWIN, BRANDT, and NELSON, 88, 449, 461
- Nelson, Victor E. See KEIL and NELSON, 93, 49
- 97, 115
- Nelson, William L., and Cretcher, Leonard H. The carbohydrate acid sulfate of *Macrocystis pyrifera*, 94, 147
- Neu, V. F. See ELVEHJEM and NEU, 97, 71
- Neupert, E. F. See CARTLAND, HEYL, and NEUPERT, 85, 539
- Neuwirth, Isaac. See BODO and NEUWIRTH, 92, xxv
- Newman, Melvin S. See ANDERSON and NEWMAN, 100, iv
- Newton, Eleanor B. See BENEDICT and NEWTON, 82, 5
- 83, 357, 361
- Nicholas, H. O. Diffusible serum calcium by high pressure ultrafiltration, 97, 457
- Nicholson, Thomas Frederick. See HARDING, NICHOLSON, and GRANT, 99, 625
- Nicolet, Ben H. The structure of glutathione, 88, 389
- . Thiohydantoin derivatives from cystine and from cysteine, 88, 395
- . The action of alkali on thiohydantoin derivatives of cystine and cysteine, 88, 403
- . The mechanism of sulfur lability in cysteine and its derivatives. II. The addition of mercaptan to benzoylamino-cinnamic acid derivatives, 95, 389
- . The mechanism of saccharinic acid formation, 97, lxxx
- . See CSONKA and NICOLET, 99, 213
- . An extension and a limitation of the thiocyanate method for the preparation of 2-thiohydantoin, 99, 429
- . The preparation of esters of α, α' -bis-acetylaminopropionic acid, 100, 287
- Nielsen, Ernst K. See GERBER, NIELSON, and CORLEY, 100, xlix
- Niemann, Carl, and Link, Karl Paul. Synthesis of the hexuronic acids. I. The synthesis of *dl*-galacturonic acid from mucic acid, 95, 203
- and — . II. The synthesis of *d*-mannuronic acid from *d*-mannosaccharic acid, 100, 407

- Nims, Betty.** See MACY, HUNSCHER, NIMS, and McCOSH, 86, 17
- See MACY, HUNSCHER, McCOSH, and NIMS, 86, 59
- See DONELSON, NIMS, HUNSCHER, and MACY, 91, 675
- See HUNSCHER, DONELSON, NIMS, KENYON, and MACY, 99, 507
- Noll, Alice.** See HUNSCHER, COPE, NOLL, MACY, COOLEY, PENBERTHY, and ARMSTRONG, 97, lxiv
- See HUNSCHER, COPE, NOLL, and MACY, 100, lv
- Nord, F. F., and Franke, Kurt W.** On the mechanism of enzyme action. II. Further evidence confirming the observations that ethylene increases the permeability of cells and acts as a protector, 79, 27
- Nord, Folke, and Deuel, Harry J., Jr.** Animal calorimetry. XXXVII. The specific dynamic action of glycine given orally and intravenously to normal and to adrenalectomized dogs, 80, 115
- Norris, Earl R., and Danielson, Irvin S.** Comparison of biological and colorimetric assays for vitamin A as applied to fish oils, 83, 469
- and Church, Anna E. A study of the antimony trichloride color reaction for vitamin A, 85, 477
- and —. A study of the antimony trichloride color reaction for vitamin A. II. The dilution curve of cod liver oil with antimony trichloride reagent, 87, 139
- and —. III. The effect of concentration of reagent used, and the stability of the chromogenic substance to light, 89, 421
- and —. The toxic effect of fish liver oils, and the action of vitamin B, 89, 437
- and —. A study of the antimony trichloride color reaction for vitamin A. IV. The source of vitamin B complex in the biological assay of vitamin A and the stability of vitamin A and of the chromogenic substance in various diluting oils, 89, 589
- Norris, R. C.** See WEST, NORRIS, and STEINER, 97, lxxxii
- van Nostrand, Frederick H.** See HARDING and VAN NOSTRAND, 85, 765
- Nunn, Margaret J.** See HALLIDAY, 95, 371
- 96, 479
- Nussmeier, Mildred.** See MASENGALE and NUSSMEIER, 87, 415, 423
- See BILLS, HONEYWELL, WIRICK, and NUSSMEIER, 90, 619
- See BILLS, McDONALD, BEMILLER, STEEL, and NUSSMEIER, 93, 775
- O
- Oard, Harry C., and Peters, John P.** The concentration of acid and base in the serum in normal pregnancy, 81, 9

- See KYDD, OARD, and PETERS, 98, 241
- Oberg, S. A. See DILL, JONES, EDWARDS, and OBERG, 100, 755
- Oberst, W. Fred, and Plass, E. D. The relation between the serum calcium, protein, and inorganic phosphorus in early and late pregnancy, during parturition and the puerperium, and in non-pregnant women, 92, xiii
- O'Brien, Helen. See STADIE, O'BRIEN, and LAUG, 91, 243
- See STADIE and O'BRIEN, 92, xxvii
- See STADIE, SUNDERMAN, O'BRIEN, and WILLIAMS, 97, xcvi
- See STADIE and O'BRIEN, 100, lxxxviii
- Ochoa, Severo, and Valdecasas, José G. A micromethod for the estimation of total creatinine in muscle, 81, 351
- O'Connor, Marie F. See LEWIS and O'CONNOR, 87, lvii
- von Oettingen, W. F., and Sollmann, Torald. The production of organic acids by excised intestines, 85, 245
- Offner, M. M. See SHEAR and OFFNER, 91, 291
- Okey, Ruth. A further study of menstrual variations in blood composition in normal women, 78, xiii
- See BLOOR, OKEY, and CORNER, 86, 291
- , Bloor, W. R., and Corner, George W. The variations in the lipids of the uterine mucosa in the pig, 86, 307
- , Stewart, Jean M., and Greenwood, Mary L. Studies of the metabolism of women. IV. The calcium and inorganic phosphorus in the blood of normal women at the various stages of the monthly cycle, 87, 91
- A micromethod for the estimation of cholesterol by oxidation of the digitonide. The effect of various procedures for saponification upon apparent cholesterol values, 87, xxi
- A micromethod for the estimation of cholesterol by oxidation of the digitonide, 88, 367
- See ERIKSON and OKEY, 91, 715
- and Stewart, Dorothy. Effect of sterol content of the diet upon cyclic variations in blood cholesterol in women, 97, xxxix
- and —. Diet and blood cholesterol in normal women, 99, 717
- The effect of diets rich in cholesterol on the tissue lipids of young rats, 100, lxxv
- Olcott, H. S., and Mattill, H. A. The unsaponifiable lipids of lettuce. II. Fractionation, 93, 59
- and —. III. Antioxidant, 93, 65

Olcott, H. S.—*continued*.

— and McCann, D. C. Carotenase. The transformation of carotene to vitamin A *in vitro*,
94, 185

— The preparation and properties of a concentrate of vitamin E from lettuce,
97, x

Olcovich, H. S., and Mattill, H. A. The unsaponifiable lipids of lettuce. I. Carotene,
91, 105

— and —. Isolation of the natural antioxidant of lettuce,
92, xxxi

Olmsted, W. H., Whitaker, W. M., and Duden, C. W. Steam distillation of the lower volatile fatty acids from a saturated salt solution,
85, 109

—, Duden, C. W., Whitaker, W. M., and Parker, R. F. A method for the rapid distillation of the lower volatile fatty acids from stools,
85, 115

— See GROVE, OLMSTED, and KOENIG,
85, 127

Orent, Elsa R. See SHELLING, KRAMER, and ORENT,
77, 157

— See MCCOLLUM and ORENT,
92, xxx

— and McCollum, E. V. Effects of deprivation of manganese in the rat,
92, 651

— See KRUSE, ORENT, and MCCOLLUM,
96, 519
97, iii

— and McCollum, E. V. The estrual cycle in rats on a manganese-free diet,
98, 101

— See KRUSE, ORENT, and MCCOLLUM,
100, 603

Ort, John M. Active glucose at biological hydrogen ion concentrations,
87, xxxiv

— and Roepke, Martin H. Active glucose. The rate of its formation as a factor in determining the speed of glucose oxidation,
92, xix

Orten, James M. See UNDERHILL, ORTEN, and LEWIS,
91, 13

—, Underhill, F. Aline, and Lewis, Robert C. A study of certain metals in the prevention of nutritional anemia in the rat,
96, 1

—, —, Mugrage, Edward R., and Lewis, Robert C. Polycythemia in the rat on a milk-iron-copper diet supplemented by cobalt,
96, 11

— See GERAGHTY, UNDERHILL, ORTEN, and LEWIS,
99, 451

—, Underhill, F. Aline, Mugrage, Edward R., and Lewis, Robert C. Blood volume studies in cobalt polycythemia,
99, 457

—, —, —, and —. The effect of manganese on cobalt polycythemia,
99, 465

— See UNDERHILL, ORTEN, MUGRAGE, and LEWIS,
99, 469

Osaki, Masao. See LEVENE, ROTHEN, STEIGER, and OSAKI,
86, 723

Osato, Shungo, and Heki, Mut-suo. On the microdetermination of lipids in tissues,
87, 541

Oser, Bernard L. The intestinal pH in experimental rickets,
80, 487

- Osterberg, Arnold E.** A modification of the electrolytic Gutzeit apparatus for the estimation of arsenic in biological material, 76, 19
- and **Schmidt, Edna V.** The influence of sodium fluoride and thymol on the determination of urea by the urease method, 76, 749
- The estimation of glycogen in small amounts of tissue, 85, 97
- Outhouse, Julia, Macy, Icie G., and Brekke, Viola.** Human milk studies. V. A quantitative comparison of the antirickettic factor in human milk and cow's milk, 78, 129
- Owens, J. S.** See **WILEY, OWENS,** and **DUFFENDACK,** 100, cv
- Page, Irvine H., and Menschick, W.** The destruction of cholesterol by the animal organism, 97, 359
- See **VAN SLYKE, PAGE,** and **KIRK,** 100, xciii
- Palmer, A. H.** See **NELSON** and **PALMER,** 87, 1
- 92, lxxviii
- The preparation of a crystalline globulin from the albumin fraction of cow's milk, 100, lxxv
- Palmer, J. W.** See **BEHR, PALMER,** and **CLARKE,** 88, 131
- and **Clarke, H. T.** The elimination of bromides from the blood stream, 99, 435
- Palmer, Leroy S.** See **HAAG** and **PALMER,** 76, 367
- See **KENNEDY** and **PALMER,** 76, 591, 607
- See **SWEETMAN** and **PALMER,** 77, 33
- See **KENNEDY** and **PALMER,** 83, 493
- and **Kennedy, Cornelia.** The fundamental food requirements for the growth of the rat. VI. The influence of the food consumption and the efficiency quotient of the animal, 87, xlv
- 90, 545
- Palmer, Walter W.** See **GUTMAN, BENEDICT, BAXTER,** and **PALMER,** 97, 303
- Pangborn, Mary C.** See **CHARGAFF, PANGBORN,** and **ANDERSON,** 90, 45
- and **Anderson, R. J.** Chemical investigations of the lipoids of the timothy bacillus, 92, xxxii
- and —. The chemistry of the lipoids of tubercle bacilli. XXV. The composition of the phosphate fraction of the timothy bacillus, 94, 465
- , **Chargaff, Erwin,** and **Anderson, R. J.** The chemistry of the lipids of tubercle bacilli. XXXI. The composition of the acetone-soluble fat of the timothy bacillus, 98, 43
- Papadakis, Philippos E.** See **NELSON** and **PAPADAKIS,** 80, 163
- Further findings on invertase from honey, 83, 561
- Pappenheimer, Alwin M., Jr.** See **CONANT** and **PAPPENHEIMER,** 98, 57

- Parfentjev, I. A., Devrient, W. C., and Sokoloff, B. F. The influence of sodium taurocholate and copper sulfate on lipase, 92, 33
- , Suntzeff, V. D., and Sokoloff, B. F. Lactate concentration in the blood of the rabbit after injection of sodium lactate, 93, 797
- and Perlzweig, William A. The composition of the urine of white mice, 100, 551
- Parker, R. F. See OLMSTED, DUDEN, WHITAKER, and PARKER, 85, 115
- Parks, Thomas B., and Braun, Charles E. A correction concerning the hypoglycemic action of *p*-aminophenylguanidine hydroiodide, 91, 629
- Parsons, Helen T. Urea concentrations in the blood of rats as affected by suckling the young, 87, xlv
- Urea concentrations in the blood of the rat in relation to pregnancy and lactation on diets containing varying concentrations of protein, 88, 311
- The physiological effects of diets rich in egg white, 90, 351
- Further observations on egg white injury in the rat, 92, lxiv
- The effect on the toxicity of egg white of various heat treatments, 97, xxx
- and Kelly, Eunice. The character of the dermatitis-producing factor in dietary egg white as shown by certain chemical treatments, 100, 645
- , —, and Hussemann, Dorothy L. Refection in the rat, 100, lxxvi
- , Lease, Jane G., and Kelly, Eunice. The cure of dermatitis due to egg white by various foodstuffs, 100, lxxvii
- Pascoe, T. A. See GREGORY and PASCOE, 83, 35
- Passoth, Kurt. See LEVENE, MIKESKA, and PASSOTH, 88, 27
- Paul, John R. See WRIGHT, HERR, and PAUL, 80, 571
- Peabody, W. A., and Hill, Robert M. Studies on creatine. II. The effect of creatine administration upon rabbits, 82, 687
- Pearce, G. W., and Streeter, L. R. A report on the effect of light on pigment formation in apples, 92, 743
- Peck, S. M. See SOBOTKA, PECK, and KAHN, 97, lxxix
- Pedersen, Svend. See ANDERSON, HONEYWELL, SANTY, and PEDERSEN, 86, 157
- Pekarek, E. See DU VIGNEAUD, FITCH, PEKAREK, and LOCKWOOD, 94, 233
- Pemberton, Ralph. See CAJORI and PEMBERTON, 76, 471
- Penberthy, Grover C. See HUNSCHER, COPE, NOLL, MACY, COOLEY, PENBERTHY, and ARMSTRONG, 97, lxiv
- Perkins, Marie E. See BUELL and PERKINS, 76, 95

- Perley, Anne Macgregor. See MORGULIS and PERLEY, 77, 647
88, 169
- Perlzweig, William A., and Barron, E. S. Guzman. Lactic acid and carbohydrate in sea urchin eggs under aerobic and anaerobic conditions, 79, 19
— See BARRON, HARROP, PERLZWEIG, and PIERCE, 87, xxv
— See PARFENTJEV and PERLZWEIG, 100, 551
— The rôle of oxidation and reduction processes in the activity of urease, 100, lxxvii
- Pertsoff, Vladimir A. The behavior of casein in partial solution in calcium hydroxide, 79, 799
— The solubility of glutamic acid in water and certain organic solvents, 100, 97
- Peters, John P. See FRIEDENSON, ROSENBAUM, THALHEIMER, and PETERS, 80, 269
— See OARD and PETERS, 81, 9
— and Eiserson, Leo. The influence of protein and inorganic phosphorus on serum calcium, 84, 155
— See FRISCH, MENDEL, and PETERS, 84, 167
— See MOORE, LAVIETES, WAKEMAN, and PETERS, 91, 373
— See KYDD, OARD, and PETERS, 98, 241
— See KYDD and PETERS, 98, 261
- Peterson, Vernon L. See WEST, SCHARLES, and PETERSON, 82, 137
- Peterson, W. H., and Elvehjem, C. A. The iron content of plant and animal foods, 78, 215
— See SKINNER and PETERSON, 79, 679
— See LINDOW, ELVEHJEM, and PETERSON, 82, 465
— See LINDOW, PETERSON, and STEENBOCK, 84, 419
— See STILES, PETERSON, and FRED, 84, 437
— See HOPKINS, PETERSON, and FRED, 85, 21
— See SKINNER and PETERSON, 88, 347
— See SKINNER, PETERSON, and STEENBOCK, 90, 65
— See PRUESS, PETERSON, STEENBOCK, and FRED, 90, 369
— See JOHNSON, PETERSON, and FRED, 91, 569
— See SKINNER, STEENBOCK, and PETERSON, 97, 227
— See ELVEHJEM and PETERSON, 97, xi
— See PRUESS, PETERSON, and FRED, 97, 483
—, Goricca, H. J., and Fred, E. B. Nitrogen constituents of mold mycelium, 100, lxxviii
- Petree, Louis G., and Alsberg, Carl L. A method for the preparation of glycogen and a study of the glycogen of the abalone, *Haliotis rufescens*, Swainson, 82, 385
- Petrelli, Joseph. See UNDERHILL and PETRELLI, 81, 159

- Petro, V. Ann. See MORGAN, 90, 771
- Pett, L. B., and Wynne, A. M. The formation of methylglyoxal by *Clostridium acetobutylicum*, 97, 177
- Petty, O. H. See KARR, PETTY, and SCHUMANN, 78, xli
- Pfiffner, J. J. See ROCKWOOD, TURNER, and PFIFFNER, 83, 289
- and Myers, Victor C. On the colorimetric estimation of guanine bases in blood, 87, 345
- See HARROP, SWINGLE, and PFIFFNER, 92, lvi
- , Vars, Harry M., Bott, P. A., and Swingle, W. W. Further studies of the adrenal cortical hormone, 97, xlv
- , —, —, and —. The cortical hormone requirement of the adrenalectomized dog, 100, lxxviii
- Phillips, Irwin E. See MULDER, PHILLIPS, and VISSCHER, 98, 269
- Phillips, Max. See CSONKA, PHILLIPS, and JONES, 78, xxiv 85, 65
- Phillips, Paul H. The manifestation of scurvy-like symptoms induced by the ingestion of sodium fluoride, 100, lxxix
- Phillips, Thomas G. The determination of sugars in plant extracts, 95, 735
- Pickens, M., Spanner, G. O., and Bauman, L. The composition of gall stones and their solubility in dog bile, 95, 505
- Pierce, H. B., and Kilborn, R. B. An adaptation of Bergeim's fecal indole method for the quantitative determination of indole in bacterial cultures, 81, 381
- See NASSET and PIERCE, 87, xli
- , Nasset, E. S., and Murlin, John R. The enzymes of a transplanted intestinal loop in the dog, 92, lxxvi
- , —, and —. Studies on the transplanted intestinal loop. II. A humoral influence in the secretion of intestinal juice, 97, xlii
- The effects of yeast ingestion on the composition of the urine and feces, 98, 509
- Pierce, H. F. See BARRON, HARROP, PERLZWEIG, and PIERCE, 87, xxv
- Pierce, M. S. See PIERCE, 98, 509
- Pigott, Madeleine G. See HOLMES, PIGOTT, and CAMPBELL, 92, 187
- Pilaar, W. M. M. Determination of carbon monoxide in blood, 83, 43
- Pilcher, Cobb. See CULLEN, HARRISON, CALHOUN, WILKINS, and PILCHER, 92, iv
- Pinhey, Kathleen Godwin. See PIRIE and PINHEY, 84, 321
- Pinto, Sherman. See MORGULIS and PINTO, 95, 621 98, 385
- Pirie, Norman W., and Pinhey, Kathleen Godwin. The titration curve of glutathione, 84, 321

- Plass, E. D.** See OBERST and PLASS, 92, xiii
- Platt, Muriel E.** See SCHROEDER, WOODWARD, and PLATT, 100, 525
- Poe, Charles F., and Klemme, Dorothea.** Reducing equivalents for some rare sugars as determined by colorimetric methods, 87, 7
- and Field, J. Thomas. A biochemical study of the fermentation of rare sugars by members of the colon-aerogenes groups of bacteria. I. Trehalose, 99, 283
- Pollack, Herbert.** See CHAMBERS, KENNARD, POLLACK, and DANN, 97, 525
- Pomerene, Elizabeth.** See MUNTWYLER, WAY, and POMERENE, 92, 733
- Pool, W. O.** See ELLIS, ROTHWELL, and POOL, 92, 385
- Posson, D. D.** See PIERCE, 98, 509
- Post, Anna L.** See BLATHERWICK, MEDLAR, BRADSHAW, POST, and SAWYER, 97, xxxiii
100, xviii
- Potgieter, Martha.** See BERG and POTGIETER, 94, 661
- Powell, Maude.** The metabolism of tricaprylin and trilaurin, 89, 547
- The metabolism of tricaprin, 95, 43
- Power, Marschelle H., and Clawson, T. Alfred, Jr.** Free sugar in liver and muscle tissue, 78, lvi
- See WAKEFIELD and POWER, 87, xv
- See GREENE and POWER, 91, 183
- See SPANNUTH and POWER, 93, 343
- and Greene, Carl H. The state of the blood sugar as shown by compensation dialysis *in vivo*, 94, 281
- and —. The nature of the blood sugar as shown by a comparison of the optical rotation and the reducing power of the *in vivo* dialysate, 94, 295
- Galactose utilization following complete removal of the liver, 97, lxxxiii
- and Adams, Mildred. The use of a modified Krogh-Rehberg apparatus for the determination of carbon dioxide in bone powder, 100, lxxx
- Preisler, Doris B.** See PREISLER and PREISLER, 89, 631
95, 181
- Preisler, Paul W.** Kinetics of the reduction of cystine and related dithio (R—S—S—R) acids by reversible oxidation-reduction systems, 87, 767
- and Preisler, Doris B. Quantitative analytical study of the simultaneous production of thiol acids (R—S—H) and sulfonic acids (R—SO₃—H) from dithio acids (R—S—S—R) by silver sulfate, 89, 631
- The simultaneous production of thiol acids (R—S—H) and sulfonic acids (R—SO₃—H) from dithio acids (R—S—S—R) by mercuric bromide and other metallic salts, 92, xxxvi

- Preisler, Paul W.—*continued*.
 — and Preisler, Doris B. The mechanism of the production of thiol acids ($R-S-H$) and sulfonic acids ($R-SO_3-H$) from dithio acids ($R-S-S-R$). II. The action of mercuric salts, 95, 181
- Price, J. Waide. See ROBINSON, PRICE, and CULLEN, 100, lxxxii, lxxxiii
- Prickett, Paul S. See BILLS, MASSENGALE, and PRICKETT, 87, 259
 —. See MASSENGALE, BILLS, and PRICKETT, 94, 213
- Pruess, L. M. Production of sterols by various molds, 87, xliii
 —, Peterson, W. H., Steenbock, H., and Fred, E. B. Sterol content and antirachitic activity of mold mycelia, 90, 369
 —, Peterson, W. H., and Fred, E. B. Isolation and identification of ergosterol and mannitol from *Aspergillus fischeri*, 97, 483
 — and Strong, F. M. The lipid content of certain molds, 100, lxxx
- Prusait, Walter. See AUSTIN and PRUSAIT, 97, lxxx
- Pucher, George W. A study of the changes occurring in the blood and urine of puppies deprived of food and water, 76, 319
 — and Finch, Myron W. The comparative reduction values of carbohydrates by the Hagedorn-Jensen, Benedict-Myers, and Folin-Wu methods, 76, 331
 —. A study on the recovery of small amounts of insulin and the use of mice for standardization purposes, 78, lxiii
 —. See VICKERY and PUCHER, 83, 1
 84, 233
 90, 179, 637
 —. See VICKERY, PUCHER, and WAKEMAN, 97, lxxxix
 —. See HANNA, VICKERY, and PUCHER, 97, 351
 —, Vickery, Hubert Bradford, and Wakeman, Alfred J. The determination of the acids of plant tissue. I. The determination of nitric acid, 97, 605
- Puckett, Howard L., and Wiley, Frank H. The relation of glycogen to water storage in the liver, 96, 367
- Pugsley, L. I. See THOMSON and PUGSLEY, 97, xcvi
 —. The effect of desiccated thyroid feeding and parathyroid hormone injection upon the excretion of calcium in the normal and hypophysectomized rat, 100, lxxxi
 — and Selye, Hans. The rôle of parathyroid hormone in the rat, 100, lxxxii
- Quam, G. N., and Hellwig, Arthur. The copper content of milk, 78, 681
- Quick, Armand J. Quantitative studies of β oxidation. I. The conjugation of benzoic acid

- and phenylacetic acid formed as the end-products from the oxidation of phenyl-substituted aliphatic acids, 77, 581
- . II. The metabolism of phenylvaleric acid, phenyl- α -, β -pentenic acid, phenyl- β -, γ -pentenic acid, mandelic acid, phenyl- β -hydroxypropionic acid, and acetophenone in dogs, 80, 515
- . See SWEET and QUICK, 80, 527
- . Quantitative studies of β oxidation. IV. The metabolism of conjugated glycuronic acids, 80, 535
- . The conjugation of benzoic acid in man, 92, 65
- . On the chemistry of the conjugation of benzoic acid, 95, 189
- . The site of the synthesis of hippuric acid and phenylacetic acid in the dog, 96, 73
- . The relationship between chemical structure and physiological response. I. The conjugation of substituted benzoic acids, 96, 83
- . The conjugation of hydroxybenzoic acids in the dog and in man, 97, lxix
- . The relationship between chemical structure and physiological response. II. The conjugation of hydroxy- and methoxybenzoic acids, 97, 403
- . III. Factors influencing the excretion of uric acid, 98, 157
- . Quantitative studies of β oxidation. V. The effect of insulin and of acetoacetic acid on the production of glycuronic acid, 98, 537
- and Cooper, Mary A. The effect of liver injury on the conjugation of benzoic acid in the dog, 99, 119
- . The production of glucuronic acid in scurvy, 100, 441
- Quigley, J. P. See REID, QUIGLEY, and MYERS, 99, 615
- Quinn, E. J. See SHERMAN, QUINN, DAY, and MILLER, 78, 293
- , Hartley, J. G., and Derow, M. A. Some observations on the behavior of vitamin A in or from primary sources, 89, 657
- and —. A study of certain properties of the provitamin A, 91, 633
- R
- Rabinowitch, I. M., and Bazin, Eleanor V. Blood sugar and respiratory metabolism time curves of normal individuals, following simultaneously administered glucose and insulin, 80, 723
- . Biochemical findings in a rare case of acute yellow atrophy of the liver. With particular reference to the origin of urea in the body, 83, 333
- . The colloidal osmotic pressure of blood in diabetes mellitus, 87, lvii
- . See LAUGHTON, MACALLUM, RABINOWITCH, and WATSON, 92, xx

Rabinowitch, I. M.—*continued.*

- The renal threshold of bilirubin, 97, 163
- The copper content of urine of normal individuals, 100, 479

Rafferty, Catherine. See BEARD, RAFFERTY, and MYERS, 94, 111

Ragins, Ida Kraus. The further application of the vanillin-hydrochloric acid reaction in the determination of tryptophane in proteins, 80, 543

- The rate with which tryptophane is liberated from proteins by enzymes, 80, 551
- See KOCH, KOCH, and RAGINS, 85, 141

Raiziss, George W., Severac, M., and Clemence, Leroy W. Chemotherapy of new derivatives of 3-amino-4-hydroxyphenylarsonic acid, 97, xeviii

Ralls, J. O. Some further studies of the factors leading to the abnormal iodine values of cholesterol, 97, xxxviii

Ralston, A. Wheeler. See FENGER, ANDREW, and RALSTON, 80, 187

Randall, Merle. See HOSKINS, RANDALL, and SCHMIDT, 88, 215

Randles, F. S., and Knudson, Arthur. Studies on cholesterol. III. The relation of the suprarenal gland and the spleen to cholesterol metabolism, 76, 89

— and —. IV. The relation of ovaries and testes to cholesterol metabolism, 82, 57

Ranson, S. W. See DAVENPORT, DAVENPORT, and RANSON, 79, 499

— See DIXON, DAVENPORT, and RANSON, 82, 61

— See DAVENPORT, DAVENPORT, and RANSON, 82, 499

— See DIXON, DAVENPORT, and RANSON, 83, 737

— See DAVENPORT, DIXON, and RANSON, 83, 741

— See DAVENPORT, DAVENPORT, and RANSON, 87, 295

Rapoport, Milton. See JONES, RAPOPORT, and HODES, 86, 267

— See JONES and RAPOPORT, 89, 647

Rapport, David, and Beard, Howard H. The effects of protein split-products upon metabolism. III. Further investigation of the fractionated protein hydrolysates and of amino acids, and their relation to the specific dynamic action of the proteins, 80, 413

Rask, O. S. See MCCOLLUM, RASK, and BECKER, 77, 753

— See DRABKIN, RASK, and BECKER, 85, 779

Ravdin, Isidor S. See DRABKIN and RAVDIN, 87, iii

Ravwitch, Sarah. See CHRISTMAN and RAVWITCH, 95, 115

Rawles, B. W., Jr. See CHANUTIN and SILVETTE, 80, 589

Rawlins, L. M. Chapman, and Schmidt, Carl L. A. Studies on the combination between certain basic dyes and proteins, 82, 709

- and —. The mode of combination between certain dyes and gelatin granules, 88, 271
- Ray, G. B., and Isaac, L. A. Chemical studies on the spleen. IV. Evidence favoring the formation of a colorless form of hemoglobin after splenectomy, 85, 549
- , Blair, H. A., and Thomas, C. I. The spectrophotometric determination of certain blood pigments, 98, 63
- Raymond, Albert L., and Levene, P. A. Hexosephosphates and alcoholic fermentation, 79, 621
- . Cozymase. Its relation to phosphatase activity, 79, 637
- and Blanco, J. G. Blood sugar determination and separation of sugars with live yeast, 79, 649
- and —. Blood sugar determination and separation of sugars with live yeast. A correction, 80, 631
- . See LEVENE and RAYMOND, 80, 633
- . See LEVENE and RAYMOND, 81, 279
- . See LEVENE, RAYMOND, and WALT, 82, 191
- . A manometric method for the determination of gas in fermentations, 83, 611
- and Levene, P. A. Synthetic hexosephosphates and their phenylhydrazine derivatives, 83, 619
- . See LEVENE and RAYMOND, 88, 513
- . See LEVENE and RAYMOND, 89, 479
- . See LEVENE and RAYMOND, 90, 247
- . See LEVENE, MEYER, and RAYMOND, 91, 497
- . See LEVENE and RAYMOND, 91, 751
- . See LEVENE and RAYMOND, 92, 757, 765
- . See LEVENE, RAYMOND, and DILLON, 95, 699
- . See LEVENE and RAYMOND, 96, 449
- . See LEVENE and RAYMOND, 97, 751, 763
- Redemann, C. E. See DUNN, SMART, REDEMANN, and BROWN, 94, 599
- Reder, Ruth. See GALLUP and REDER, 94, 221
- Redfield, Alfred C., Coolidge, Thomas B., and Shotts, Mary A. The respiratory proteins of the blood. I. The copper content and the minimal molecular weight of the hemocyanin of *Limulus polyphemus*, 76, 185
- , —, and Montgomery, Hugh. The respiratory proteins of the blood. II. The combining ratio of oxygen and copper in some bloods containing hemocyanin, 76, 197
- and Mason, Eleanor D. The respiratory proteins of the blood. III. The acid-combining capacity and the dibasic amino acid content of the hemocyanin of *Limulus polyphemus*, 77, 451
- , Humphreys, George, and Ingalls, Elizabeth. The respiratory proteins of the blood. IV. The buffer action of hemocyanin in the blood of *Limulus polyphemus*, 82, 759

- Reed, C. I. On the state of plasma calcium in parathyroidectomized dogs, 77, 547
- See WEAVER and REED, 85, 281
- Reed, Lucille L., Yamaguchi, Fumiko, Anderson, William E., and Mendel, Lafayette B. Factors influencing the distribution and character of adipose tissue in the rat, 87, 147
- , Anderson, William E., and Mendel, Lafayette B. Factors influencing the distribution and character of adipose tissue in the rat. II. The effect of ovariectomy and of feeding with thyroxine, 96, 313
- Reid, Eric. The effect of insulin on the blood diastase, 97, 1
- See MYERS and REID, 99, 595
- and Myers, Victor C. Studies on animal diastases. IV. The effect of insulin on the diastatic activity of the blood in diabetes, 99, 607
- , Quigley, J. P., and Myers, Victor C. Studies on animal diastases. V. Blood and tissue diastases, with special reference to the depancreatized dog, 99, 615
- Reiner, H. Kopp, and Reiner, L. The fractional precipitation of serum globulin at different hydrogen ion activities. Experiments with globulin obtained from normal and immune (anti-pneumococcus) horse serum, 95, 345
- Reiner, L. See REINER and REINER, 95, 345
- Reiner, Miriam. See TUCHMAN and REINER, 100, 775
- and Sobotka, Harry. Tyrosine and cystine content of serum proteins, 100, 779
- Reinhold, John G. See MEEKER and REINHOLD, 77, 505
- and Wilson, D. Wright. The determination of cholic acid in bile, 96, 637
- Reis, Frederick, and Chakmakjian, H. H. Colorimetric method for quantitative determination of iron in blood in the form of dispersed Prussian blue, 92, 59
- and —. Determination of iron in cow's milk and human milk, 98, 237
- Reisinger, John A. See WALKER, ELLINWOOD, and REISINGER, 97, lxxii
- Remington, Roe E. Blood hemoglobin in thyroid enlargement, 92, lxxix
- Studies on the relation of diet to goiter. II. The iodine requirement of the rat, 97, ci
- Renfrew, Alice G. The chemical study of bacteria. XXIX. A proximate analysis of a defatted residue of avian tubercle bacilli, 83, 569
- The chemical study of bacteria. The presence of *d*-mannose and *d*-arabinose in a complex carbohydrate isolated from the culture medium after the growth of tubercle bacilli, 89, 619

- and Cretcher, Leonard H. Quince seed mucilage, 97, 503
- Resnikoff, Louis. See SHEAR, KRAMER, and RESNIKOFF, 83, 721
- Rheinberger, Margaret. See MCGAVRAN and RHEINBERGER, 100, 267
- . See COLLETT, RHEINBERGER, and LITTLE, 100, 271
- Richards, A. N. A simple instrument for micromanipulations, 87, 463
- . See FREEMAN, LIVINGSTON, and RICHARDS, 87, 467
- and Walker, Arthur M. Quantitative studies of the glomerular elimination of phenol red and indigo carmine in frogs, 87, 479
- . See BORDLEY and RICHARDS, 97, lxxii
- Richards, Oscar W. The stimulation of yeast growth by thallium, a "bios" impurity of asparagine, 96, 405
- Richardson, Henry B. See SHORR, LOEBEL, and RICHARDSON, 86, 529
- , Shorr, Ephraim, and Loebel, Robert O. Tissue metabolism. II. The respiratory quotient of normal and diabetic tissue, 86, 551
- Richardson, Luther R. See HOGAN and RICHARDSON, 97, vii 100, lv
- Ricketts, Rowland. See EBERHARD, RICKETTS, RIEGER, and HEPBURN, 92, lxxxviii
- . See HEPBURN, EBERHARD, RICKETTS, and RIEGER, 97, xliii
- Rider, T. H. Glutamic acid in the treatment of experimental anemia, 100, 243
- Rieger, Charles L. W. See EBERHARD, RICKETTS, RIEGER, and HEPBURN, 92, lxxxviii
- . See HEPBURN, EBERHARD, RICKETTS, and RIEGER, 97, xliii
- Riising, Blanche M. See WADDELL, STEENBOCK, ELVEHJEM, and HART, 77, 769
- . See WADDELL, ELVEHJEM, STEENBOCK, and HART, 77, 777
- . See HART, STEENBOCK, WADDELL, and ELVEHJEM, 77, 797
- . See STEENBOCK, BLACK, and THOMAS, 85, 585
- . See STEENBOCK, HART, RIISING, HOPPERT, BASHEROV, and HUMPHREY, 87, 103
- . See STEENBOCK, HART, RIISING, KLETZIEN, and SCOTT, 87, 127
- Rising, Mary M., and Johnson, Clarence A. The biuret reaction. I. The biuret reaction of acid imides of the barbituric acid type, 80, 709
- , Hicks, Joseph S., and Moerke, Georgine A. The biuret reaction. II. The biuret reaction of di-acid amides, 89, 1
- and Yang, Peter S. The biuret reaction. III. The biuret reaction of amino acid amides, 99, 755

- Rivkin, H. See HESS, WEINSTOCK, RIVKIN, and GROSS, 87, 37
- Robbins, Benjamin H. A proteolytic enzyme in ficin, the anthelmintic principle of leche de higueron, 87, 251
- Roberts, E. Gilman. See ANDERSON and ROBERTS, 85, 509, 519, 529
87, xvii
89, 599, 611
- and Anderson, R. J. The chemistry of the lipoids of tubercle bacilli. XXII. Concerning the carbohydrates of the purified wax, 90, 33
- Robinson, A. See CHAIKOFF and ROBINSON, 100, 13
- Robinson, C. S., Huffman, C. F., and Mason, M. F. The results of the ingestion of certain calcium salts and of lactose, 84, 257
- and Duncan, C. W. The effect of lactose and the acid-base value of the diet on the hydrogen ion concentration of the intestinal contents of the rat and their possible influence on calcium absorption, 92, 435
- Robinson, Howard W. The influence of neutral salts on the pH of phosphate buffer mixtures, 82, 775
- , Price, J. Waide, and Cullen, Glenn E. Studies on the acid-base condition of blood. III. The pK' of human and dog sera, 100, lxxxii
- , —, and —. IV. The C corrections of the colorimetric pH method for plasma and serum, 100, lxxxiii
- Robinson, William. Free and bound water determinations by the heat of fusion of ice method. 92, 699
- Robscheit-Robbins, Frieda S., Elden, C. A., Sperry, Warren M., and Whipple, G. H. Blood regeneration in severe anemia. XII. Potent influence of inorganic ash of apricots, liver, kidney, and pineapple, 79, 563
- See ELDEN, SPERRY, ROBSCHEIT-ROBBINS, and WHIPPLE, 79, 577
- See SPERRY, ELDEN, ROBSCHEIT-ROBBINS, and WHIPPLE, 81, 251
- Robson, George M. See JONES and ROBSON, 91, 43
- Rockwood, E. W., Turner, R. G., and Pffiffer, J. J. A previously undetected constituent of blood, 83, 289
- Roe, Joseph H. The colorimetric estimation of blood serum calcium, 78, xlvi
- and Kahn, Bernard S. The colorimetric determination of blood calcium, 81, 1
- Blood chemistry studies with hens bearing Rous sarcoma No. 1, 87, liv
- and Schwartzman, Aaron S. Galactose tolerance of normal and diabetic subjects, and the effect of insulin upon galactose metabolism, 96, 717

- Roehm, Richard R. See WILLIAMS, McALISTER, and ROEHM, 83, 315
- See WILLIAMS and ROEHM, 87, 581
- Roepke, Martin H. See ORT and ROEPKE, 92, xix
- Rony, H. R., Mortimer, B., and Ivy, A. C. Fat transport through the lymph system in fasting and phlorhizin poisoning, 96, 737
- Ronzoni, Ethel. Comparison of the lactic acid metabolism of smooth and striated muscle, 78, lv
- , Glaser, Jerome, and Barr, David P. Studies of the inhibitory action of an extract of pancreas upon glycolysis. I. Effect of pancreatic inhibitor on the glycolysis of muscle tissue and muscle extract, 80, 309
- See BARR, RONZONI, and GLASER, 80, 331
- Evidence of the activation of fructose in the enzymatic hydrolysis of sucrose, 87, xxxiii
- The source of energy of nerve activity, 92, iii
- See KERLY and RONZONI, 97, lxxiv
- and Kerly, Margaret. The disappearance of hexosemonophosphate from frog muscle, 100, lxxxiv
- Root, R. W., Hall, F. G., and Gray, I. E. The influence of insulin on glycogen distribution in marine fishes, 91, 27
- Rose, Anton R., and Schattner, Fred. Preservative for small blood samples sent through the mails, 92, xvii
- See EXTON and ROSE, 97, xxvii
- Rose, Catharine S. See SHOHL, BROWN, ROSE, SMITH, and COZAD, 92, x, 711
- See SHOHL, BROWN, ROSE, and SAURWEIN, 97, x
- See BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN, 98, 207
- See SHOHL, BROWN, CHAPMAN, ROSE, and SAURWEIN, 98, 215
- Rose, Embree R. See MUNTWYLER, ROSE, and MYERS, 92, xc
- Rose, Mary Swartz, and McCollum, Ella L. Studies in nutrition. I. Growth, reproduction, and lactation on diets with different proportions of cereals and vegetables, 78, 535
- and —. II. The effect of adding egg to a diet already adequate, 78, 549
- and Vahlteich, Ella McCollum. Factors in food influencing hemoglobin regeneration. I. Whole wheat flour, white flour, prepared bran, and oatmeal, 96, 593
- and Kung, Lan-Chên. Factors in food influencing hemoglobin regeneration. II. Liver in comparison with whole wheat and prepared bran, 98, 417
- Rose, Miriam. See MULLER, 84, 345

- Rose, William C. See BUNNEY and ROSE, 76, 521
- , Ellis, Ruth H., and Helming, Oscar C. The transformation of creatine into creatinine by the male and female human organism, 77, 171
- , See WESTERMAN and ROSE, 79, 413, 423
- , See JACKSON, SOMMER, and ROSE, 80, 167
- , See BERG and ROSE, 82, 479
- , See HYDE and ROSE, 84, 535
- , See BERG, ROSE, and MARVEL, 85, 207, 219
- , See SCULL and ROSE, 89, 106
- , Ellis, Ruth H., Windus, Wallace, and Catherwood, Florence L. Feeding experiments with mixtures of highly purified amino acids. A preliminary report, 92, lxvi
- , Feeding experiments with mixtures of highly purified amino acids. I. The inadequacy of diets containing nineteen amino acids, 94, 155
- , See ELLIS and ROSE, 94, 167
- , See WINDUS, CATHERWOOD, and ROSE, 94, 173
- , See ST. JULIAN and ROSE, 97, xxxi
- 98, 439, 445, 457
- Roseberry, H. H., Hastings, A. Baird, and Morse, J. K. x-Ray analysis of bone and teeth, 90, 395
- Rosenbaum, M. K. See FRIEDENSON, ROSENBAUM, THALHEIMER, and PETERS, 80, 269
- Rosenbaum, Maurice M. See LANGLEY, ROSENBAUM, and ROSENBAUM, 99, 271
- Rosenbaum, Myron G. See LANGLEY, ROSENBAUM, and ROSENBAUM, 99, 271
- Rosenthal, Nathan. See HEIDELBERGER, ROSENTHAL, COHN, and FRIEDMAN, 78, lxvi
- Rosenthal, Sanford M. See VOEGTLIN, JOHNSON, and ROSENTHAL, 93, 435
- Rothen, Alexandre. See LEVENE and ROTHEN, 81, 359
- , See LEVENE, BASS, ROTHEN, and STEIGER, 81, 687
- , See LEVENE and ROTHEN, 84, 63
- , See LEVENE, ROTHEN, STEIGER, and OSAKI, 86, 723
- , See LEVENE, STEIGER, and ROTHEN, 97, 717
- , See LEVENE, MARKER, and ROTHEN, 100, 589
- Rothwell, Carmen S. See ELLIS, ROTHWELL, and POOL, 92, 385
- Rourke, M. Dorothy. On the determination of the sodium content of small amounts of serum or heparinized plasma by the iodometric method, 78, 337
- Rowe, L. W. See KAMM, GROTE, and ROWE, 92, lxix
- Rowntree, Leonard G. See GREENE, ALDRICH, and ROWNTREE, 80, 753
- Royster, L. T. See CHANUTIN, BUTT, and ROYSTER, 100, xxvi

- Rubenstein, Boris B.** See NAVEZ and RUBENSTEIN, 80, 503
95, 645
- Rupp, Virgil R.** See MCCLELLAN, RUPP, and TOSCANI, 87, 669
- Russell, Walter C., Massengale, O. N., and Howard, C. H.** The duration of the effect of ultra-violet radiation on chickens, 78, xxi
80, 155
- and McDonald, Francis G. The utilization of the calcium of calcium carbonate and citrate by laying and non-laying pullets, 84, 463
- The effect of the curing process upon the vitamin A and D content of alfalfa, 85, 289
- and McDonald, Francis G. The effect of calcium citrate and carbonate upon the evacuation of a protein from the stomach and the pH of the contents, 87, iv
- and Howard C. H. The duration of the effect of winter sunlight on bone formation in the chicken, 91, 493
- See KLEIN and RUSSELL, 93, 693
- , Taylor, M. W., and Wilcox, D. E. The fate of the antirachitic factor in the chicken. II. The effectiveness of the factor administered by mouth and intraperitoneally, 99, 109
- Rymer, Marion R., and Lewis, Robert C.** Studies on the calcium content of human blood corpuscles, 95, 441
- See LEWIS and RYMER, 100, lxiii
- Sacks, Jacob, and Davenport, H. A.** The inorganic phosphate content of resting mammalian muscle, 79, 493
- See DAVENPORT and SACKS, 81, 469
- Sahyun, Melville, and Blatherwick, N. R.** Effect of intraperitoneal injections of insulin upon the blood sugar of well fed rabbits, 77, 459
- See BISCHOFF, BLATHERWICK, and SAHYUN, 77, 467
- and Blatherwick, N. R. The physiological response of rabbits to insulin, 79, 443
- See BLATHERWICK and SAHYUN, 81, 123
- See BISCHOFF and SAHYUN, 81, 167
- See BISCHOFF, SAHYUN, and LONG, 81, 325
- and Alsberg, Carl L. The effect of whole skeletal muscle on blood sugar *in vitro*, 83, 129
- and Luck, James Murray. The influence of epinephrine and insulin on the distribution of glycogen in rabbits, 85, 1
- and Alsberg, Carl L. On rabbit liver glycogen and its preparation, 89, 33
- Determination of glycogen in tissues, 93, 227
- and Alsberg, Carl L. Studies on glycogen. The hydrolysis of glycogen in various concen-

Sahyun, Melville—*continued.*

trations of acids, and the hydrolysis of glycogen with taka-diastase, 93, 235

— On the carbohydrates of the muscles of the frog (*Rana pipiens*), 94, 29

— On the carbohydrates of muscle, 94, 253

St. John, J. L. Growth on a synthetic ration containing small amounts of sodium, 77, 27

— and **Johnson, Otto.** The determination of uric acid in the study of avian nutrition, 92, 41

St. Julian, R. Reder, and Heller, V. G. The effects of vitamin deficiency upon the coefficients of digestibility of protein, fat, and carbohydrate, 90, 99

— and **Rose, William C.** The relation of certain 5-carbon amino acids to growth, 97, xxxi

— and —. The relation of the dicarboxylic amino acids to nutrition, 98, 439

— and —. Proline and hydroxyproline in nutrition, 98, 445

— and —. The possible interchangeability in nutrition of certain 5-carbon amino acids, 98, 457

Salit, Peter Waldemar. A new triple acetate method for sodium determinations in biological materials, 96, 659

Salle, A. J. A micro electrode and vessel for the determination of the hydrogen ion concentration of blood media, whole blood, and other biological fluids, 83, 765

Salmon, W. D., Guerrant, N. B., and Hays, I. M. On the existence of two active factors in the vitamin B complex. II. 76, 487

— See **GUERRANT** and **SALMON**, 80, 67

—, **Guerrant, N. B., and Hays, I. M.** The effect of hydrogen ion concentration upon adsorption of the active factors of vitamin B complex by fullers' earth, 80, 91

— See **GUERRANT** and **SALMON**, 89, 199

Salomon, H. See **KARRER** and **SALOMON**, 93, 407

Salter, William T. See **COHN**, **MINOT**, **ALLES**, and **SALTER**, 77, 325

Samisch, Zdenka. See **MORGAN**, **KIMMEL**, **THOMAS**, and **SAMISCH**, 100, lxxi

Sandberg, Marta. See **BRAND**, **HARRIS**, **SANDBERG**, and **LASKER**, 87, ix

— and **Holly, Olive M.** Note on myrosin, 96, 443

— and —. On the influence of ethyl isothiocyanate, ethyl thio-cyanate, and allyl isothiocyanate on sulfur metabolism in rabbits, 97, 31

— and —. On the influence of vitamin B and of iodine on the calcium and phosphorus metabolism of rabbits with hyperplastic thyroids, 99, 547

Sanders, George P. The determination of the calcium, magnesium, and acid-soluble phosphorus of milk by means of trichloroacetic acid filtrates, 90, 747

- Sandiford, Irene.** See DEUEL, SANDIFORD, and BOOTHBY, 76, 391, 407
- Sandiford, Kathleen.** See DEUEL, SANDIFORD, and BOOTHBY, 76, 391, 407
- Sando, Charles E.** Ursolic acid, 90, 477
- The plant coloring matter, robinin, 94, 675
- See MARKLEY, HENDRICKS, and SANDO, 98, 103
- Sandstedt, R. M.** See BLISH and SANDSTEDT, 85, 195
- Sankstone, M. I.** See AUSTIN, SMALLEY, and SANKSTONE, 92, xviii
- Santy, Albert C.** See ANDERSON, HONEYWELL, SANTY, and PEDERSEN, 86, 157
- Saurwein, Esther M.** See SHOHL, BROWN, ROSE, and SAURWEIN, 97, x
- See BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN, 98, 207
- See SHOHL, BROWN, CHAPMAN, ROSE, and SAURWEIN, 98, 215
- See BING, SAURWEIN, and MYERS, 100, xv
- Sawyer, Susan D.** See BLATHERWICK, MEDLAR, BRADSHAW, POST, and SAWYER, 97, xxxiii
100, xviii
- Schaible, Philip J.** Plasma lipids in lactating and non-lactating animals, 95, 79
- Scharles, Frederick H.** See WEST and SCHARLES, 78, liv
- See WEST, SCHARLES, and PETERSON, 82, 137
- and West, Edward S. The combined sugar of tungstic acid filtrates of blood, 93, 359
- Schattner, Fred.** See ROSE and SCHATTNER, 92, xvii
- See EXTON and ROSE, 97, xxvii
- Schelling, Victor.** Observations on the serum calcium, proteins, and inorganic phosphorus in experimental vitamin B deficiency and inanition, 89, 575
- A study of the blood glutathione, 96, 17
- Schlutz, Frederic W., Swanson, W. W., and Ziegler, Mildred R.** Experimental study of plasma protein regeneration, 78, vii
- and Morse, Minerva. Changes in certain blood constituents produced by partial inanition and muscular fatigue, 97, lix
- , Hastings, A. Baird, and Morse, Minerva. Certain blood changes associated with physical exhaustion, 100, lxxxv
- Schmidt, Carl L. A.** See KIRK and SCHMIDT, 76, 115
81, 237
- See SCHMIDT, KIRK, and SCHMIDT, 81, 249
- , Appleman, W. K., and Kirk, Paul L. The effect of the position of substitution on the apparent dissociation constants of certain amino acids, 81, 723

Schmidt, Carl L. A.—*continued.*

- The reaction between nitrous acid and certain amino acids and related compounds at 45°, 82, 587
- See RAWLINS and SCHMIDT, 82, 709
- See KIRK and SCHMIDT, 83, 311
- , Appleman, W. K., and Kirk, Paul L. The apparent dissociation constants of tryptophane and of histidine, 85, 137
- See GOSS and SCHMIDT, 86, 417
- See MIYAMOTO and SCHMIDT, 87, 327
- See HOSKINS, RANDALL, and SCHMIDT, 88, 215
- See SMYTHE and SCHMIDT, 88, 241
- See RAWLINS and SCHMIDT, 88, 271
- , Kirk, Paul L., and Appleman, W. K. The apparent dissociation constants of arginine and of lysine and the apparent heats of ionization of certain amino acids, 88, 285
- See DALTON, KIRK, and SCHMIDT, 88, 589
- See MIYAMOTO and SCHMIDT, 90, 165
- See EMERSON, KIRK, and SCHMIDT, 92, 449
- See CZARNETZKY and SCHMIDT, 92, 453
- See MIYAMOTO and SCHMIDT, 97, 333
- See MIYAMOTO and SCHMIDT, 99, 335
- Schmidt, E. G. The inactivation of urease, 78, 53

Schmidt, Edna V. See OSTERBERG and SCHMIDT, 76, 749

Schmidt, L. H. See TASHIRO and SCHMIDT, 92, lviii

— Further studies on the relation of thyroid activity to the power of certain bile salts to produce gastric ulcers, 100, lxxxvi

Schmidt, Werner, Kirk, Paul L., and Schmidt, Carl L. A. The dissociation constants of ornithine, 81, 249

Schmitt, Francis O. See MONAGHAN and SCHMITT, 96, 387

Schock, E. D. See JENSEN, SCHOCK, and SOLLERS, 98, 93

— See EVANS and SCHOCK, 100, xli

Schockaert, J. A., and Foster, G. L. Influence of anterior pituitary substances on the total iodine content of the thyroid gland in the young duck, 95, 89

Schoeffel, Eugene, and Link, Karl Paul. The preparation of *d*-mannuronic acid lactone, 95, 213

— and —. Isolation of α - and β ,*d*-mannuronic acid, 100, 397

Schoonover, Janetta. See FOSBINDER and SCHOONOVER, 88, 605

Schormüller, A. See LEVENE and SCHORMÜLLER, 93, 571

100, 583

- Schott, Hermann F.** See BOR-
SOOK and SCHOTT, 92, 535, 559
- Schroeder, E. F., Woodward,
Gladys E., and Platt, Muriel E.**
The effect of amines on yeast
poisoned by iodoacetic acid,
100, 525
- Schultze, M. O.** See KLINE,
SCHULTZE, and HART,
97, 83
- See ELVEHJEM and SCHULTZE,
100, xxxix
- Schumann, C.** See KARR, PETTY,
and SCHUMANN, 78, xli
- Schwab, Edward H.** See BO-
DANSKY, SCHWAB, and BRIND-
LEY, 85, 307
- See BODANSKY and SCHWAB,
87, x
- Schwartzman, Aaron S.** See ROE
and SCHWARTZMAN,
96, 717
- Schwoch, G.** See MORRELL,
VARLEY, HART, and SCHWOCH,
78, lxviii
- Scott, Albert B.** See JACOBS and
SCOTT, 87, 601
93, 139
- Scott, D. A., and Glaister, D.**
The action of saponin on anti-
toxin, 84, 475
- Further studies on crystal-
line insulin, 92, 281
- See CHARLES and SCOTT,
92, 289
- Scott, F. H.** See COLLINS and
SCOTT, 97, 189
- Scott, H. T.** See STEENBOCK,
HART, RIISING, KLETZIEN, and
SCOTT, 87, 127
- Scott, Norman D.** See CONANT
and SCOTT, 76, 207
- See CONANT, SCOTT, and
DOUGLASS, 76, 223
- Scull, C. Wesler, and Rose, Wil-
liam C.** Arginine metabolism.
I. The relation of the arginine
content of the diet to the incre-
ments in tissue arginine during
growth, 89, 109
- Sealock, Robert Ridgely.** See
DU VIGNEAUD and SEALOCK,
96, 511
- See DU VIGNEAUD, SEALOCK,
and VAN ETEN, 98, 565
- See DU VIGNEAUD, SEALOCK,
SIFFERD, KAMM, and GROTE,
100, xciv
- Sebrell, W. H.** See SULLIVAN,
HESS, and SEBRELL,
92, lxvii
- Seegers, Walter H., and Smith,
H. Gregg.** The presence of a
new dietary principle in liver,
100, lxxxvii
- Seibert, Florence B., and Hanke,
Milton T.** Electrodialysis of
tuberculin. VIII, 76, 535
- An improved and simplified
method for making a standard
undenatured tuberculin of any
desired strength and a chemi-
cal assay for the same,
78, lxxi
- The chemical composition
of the active principle of tuber-
culin. XI. An improved and
simplified method for making
a standard undenatured tuber-
culin of any desired strength
and a method of chemical assay,
78, 345
- and Munday, Betty. Frac-
tionations of the tuberculin pro-
tein, 87, xvii

- Seibert, Florence B., and Munday, Betty—*continued*.
- and —. The nitrogen and amino acid content of various tuberculins, 92, lxxvii
- See MUNDAY and SEIBERT, 100, 277
- Seidell, Atherton. Further progress towards the isolation of the antineuritic vitamin (vitamin B) from brewers' yeast, 82, 633
- The extraction of the antineuritic vitamin (vitamin B₁) from dried brewers' yeast, 100, 195
- Seljeskog, S. R. See CAVETT and SELJESKOG, 100, xxvi
- Selye, Hans. See COLLIP, THOMSON, and SELYE, 100, xxxi, xxxii
- See PUGSLEY and SELYE, 100, lxxxi
- Semeonoff, Eugenia. See DUPRÉ and SEMEONOFF, 94, 341
- Sendroy, Julius, Jr., and Hastings, A. Baird. The activity coefficients of certain acid-base indicators, 78, lxxvii
- See VAN SLYKE, SENDROY, HASTINGS, and NEILL, 78, 765
- See VAN SLYKE and SENDROY, 78, 801
- See HASTINGS, SENDROY, and VAN SLYKE, 79, 183
- See HASTINGS, SENDROY, McINTOSH, and VAN SLYKE, 79, 193
- See VAN SLYKE, HASTINGS, HILLER, and SENDROY, 79, 769
- See VAN SLYKE and SENDROY, 79, 781
- and Hastings, A. Baird. The activity coefficients of certain acid-base indicators, 82, 197
- See VAN SLYKE and SENDROY, 84, 217
- and Liu, Shih Hao. Gasometric determination of oxygen and carbon monoxide in blood, 89, 133
- Manometric determination of hemoglobin by the oxygen capacity method, 91, 307
- See VAN SLYKE and SENDROY, 95, 509
- See VAN SLYKE, SENDROY, and LIU, 95, 531, 547
- Manometric analysis of gas mixtures. VI. Carbon monoxide by absorption with blood, 95, 599
- Sereque, Arthur F. See CARPENTER, FOX, and SEREQUE, 82, 335
- 83, 211
- Severac, M. See RAIZISS, SEVERAC, and CLEMENCE, 97, xcvi
- Shaffer, Philip A. See ARIYAMA and SHAFFER, 78, li
- and Friedemann, Theodore E. Sugar activation by alkali. I. Formation of lactic and saccharinic acids, 86, 345
- See WENDEL and SHAFFER, 87, xx
- and Harned, Ben K. Oxidations induced by sugars. I. The formation of barium peroxide, 93, 311
- See URBAN and SHAFFER, 94, 697

- and Somogyi, Michael. Cop-
per-iodometric reagents for
sugar determination,
100, 695
- Shambaugh, Noel F., Lewis, How-
ard B., and Tourtellotte, Dee.
Comparative studies of the me-
tabolism of the amino acids.
IV. Phenylalanine and tyro-
sine, 92, 499
- Sharlit, Herman. A method for
the quantitative estimation of
indoxyl compounds in urine,
99, 537
- Shaw, Mary Margaret. See
KRAMER, LATZKE, and SHAW,
79, 283
- Shea, Eleanor R. See TAYLOR,
87, 27
- Shear, M. J., and Kramer, Ben-
jamin. Composition of bone.
I. Analytical micromethods,
79, 105
- See KRAMER and SHEAR,
79, 121
- and Kramer, Benjamin. Com-
position of bone. III. Physico-
chemical mechanism,
79, 125
- See KRAMER and SHEAR,
79, 147
- and Kramer, Benjamin. Com-
position of bone. V. Some
properties of calcium citrate,
79, 161
- See KRAMER, SHEAR, and
McKENZIE, 82, 555
- , Washburn, Martha L., and
Kramer, Benjamin. Composi-
tion of bone. VII. Equilibra-
tion of serum solutions with
dicalcium phosphate,
83, 697
- , Kramer, Benjamin, and Res-
nikoff, Louis. Composition of
bone. VIII. Conductivity ti-
trations of calcium ion with
chloride, acetate, lactate, and
citrate ions at 38°, 83, 721
- and —. Composition of bone.
IX. Equilibration of serum
with dicalcium phosphate,
86, 677
- See KRAMER, SHEAR, and SIE-
GEL, 91, 271
- and Offner, M. M. Composi-
tion of bone. XI. Binding of
calcium ions by serum,
91, 291
- See KRAMER, SHEAR, and
SIEGEL, 91, 723
- See WASHBURN and SHEAR,
99, 21
- Sheard, Charles. See TAYLOR
and SHEARD, 81, 479
- Shearer, Lucy D. See CHAUTIN
and SHEARER, 91, 475
- Shelling, David H., Kramer, Ben-
jamin, and Orent, Elsa R.
Studies upon calcification *in*
vitro. III. Inorganic factors
determining calcification,
77, 157
- and Maslow, Herman L. The
effect of sodium citrate, acetate,
and lactate on the ultrafiltra-
bility of serum calcium,
78, 661
- Calcium and phosphorus
studies. I. The effect of cal-
cium and phosphorus of the
diet on tetany, serum calcium,
and food intake of parathyroid-
ectomized rats, 96, 195

Shelling, David H.—*continued.*

- II. The effect of diet and of viosterol on the tetany and on the serum calcium of parathyroidectomized rats, 96, 215
- III. The source of excess serum calcium in viosterol hypercalcemia, 96, 229
- Sheppard, Fay.** See **EVERETT** and **SHEPPARD**, 80, 255
87, xxxv
92, xxv
96, 431
97, lxxxi
- Sherman, H. C., Quinn, E. J., Day, P. L., and Miller, E. H.** The relative stability of vitamin A from plant sources, 78, 293
- and **Burtis, M. P.** Factors affecting the accuracy of the quantitative determination of vitamin A, 78, 671
- and **Stiebeling, H. K.** Quantitative studies of responses to different intakes of vitamin D, 83, 497
- , **Caldwell, M. L., and Adams, Mildred.** Enzyme purification: further experiments with pancreatic amylase, 88, 295
- and **Stiebeling, H. K.** Quantitative differentiation of vitamins A and D. II, 88, 683
- and **Whitsitt, M. L.** A study of the effect of nitrous acid upon components of the vitamin B complex, 90, 153
- and **Batchelder, E. L.** Further investigation of quantitative measurement of vitamin A values, 91, 505
- and **Booher, Lela E.** The calcium content of the body in relation to that of the food, 93, 93
- and **Campbell, H. L.** Observations on growth from the view-point of statistical interpretation, 97, iii
- and **Derbigny, I. A.** Studies on vitamin G (B₂) with special reference to protein intake, 99, 165
- Sherman, W. C.** See **ELVEHJEM** and **SHERMAN**, 98, 309
- Shirohara, Kamenosuke.** Oxidation of cystine by iodine in aqueous medium, 96, 285
- Oxidation of disulfides, 97, xxii
- Shock, N. W.** See **HASTINGS** and **SHOCK**, 97, lx
- Shönheimer, Rudolf.** Is unirradiated ergosterol absorbable? 92, v
- Shohl, Alfred T., and Bennett, Helen B.** Rickets in dogs. Metabolism of calcium and phosphorus, 76, 633
- , —, and **Weed, Katharine L.** Rickets in rats. IV. The effect of varying the acid-base content of the diet, 78, 181
- and —. A micromethod for the determination of potassium as iodoplatinate, 78, 643
- , —, and **Weed, Katharine L.** Rickets in rats. VII. Metabolism of calcium and phosphorus of rats fed upon non-ricketogenic diets, 79, 257

- and **Bing, Franklin C.** Rickets in rats. IX. pH of the feces, 79, 269
- The determination of pH and carbon dioxide on a single small sample of blood plasma or serum, 83, 759
- and **Brown, Helen Bennett.** Rickets in rats. X. Fasting tetany and phosphate tetany, 84, 501
- See **BROWN and SHOHL**, 86, 245
91, 745
- , **Brown, Helen Bennett, Rose, Catharine S., Smith, Donald N., and Cozad, Florence.** The acid-base equilibrium of rats in rickets and tetany, 92, x
- , —, —, and **Cozad, Florence.** Rickets in rats. XII. The acid-base equilibrium of the blood in rickets and tetany, 92, 711
- , —, —, and **Saurwein, Esther M.** Does the ratio of calcium to phosphorus of the diet determine whether rickets is produced in the rat? 97, x
- See **BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN**, 98, 207
- , **Brown, Helen Bennett, Chapman, Edna E., Rose, Catharine S., and Saurwein, Esther M.** Rickets in rats. XIV. A diet which demonstrates the effect of the acid-base content upon the production of rickets and also causes idiopathic tetany, 98, 215
- Shope, Richard E.** The distribution of sugar between blood corpuscles and blood plasma for several animal species, 78, 107
- The distribution of sugar between corpuscles and plasma in blood from normal human beings, and from diabetics with and without insulin therapy, 78, 111
- Differences in serum and plasma content of cholesterol ester, 80, 125
- Cholesterol esterase in animal tissues, 80, 127
- The hypercholesterolemia of fasting as influenced by the separate administration of fats, carbohydrates, and proteins, 80, 133
- The effect of age on the total and combined cholesterol of the blood serum, 80, 141
- Shorr, Ephraim, Loebel, Robert O., and Richardson, Henry B.** Tissue metabolism. I. The nature of phlorhizin diabetes, 86, 529
- See **RICHARDSON, SHORR, and LOEBEL**, 86, 551
- Shotts, Mary A.** See **REDFIELD, COOLIDGE, and SHOTTS**, 76, 185
- Shrewsbury, Charles L.** See **HOGAN, SHREWSBURY, and BRECKENRIDGE**, 87, xlii
- Shriner, R. L., and Ko, Luther.** Some derivatives of cholesterol, 80, 1
- and **Anderson, R. J.** A contribution to the chemistry of grape pigments. V. The anthocyanins in Ives grapes, 80, 743

- Shumaker, L.** See **MORGULIS**, 86, 75
- Shwartzman, Gregory.** See **HEIDELBERGER**, **SHWARTZMAN**, and **COHN**, 78, lxxvi
- Siegel, Jac.** See **KRAMER**, **SHEAR**, and **SIEGEL**, 91, 271, 723
- Sifferd, R. H.** See **DU VIGNEAUD**, **SEALOCK**, **SIFFERD**, **KAMM**, and **GROTE**, 100, xciv
- Silberman, Alfred K., and Lewis, Howard B.** The tyrosine content of cocoons of various species, 95, 491
- Silvette, Herbert.** See **SMITH** and **SILVETTE**, 78, 409
- See **CHANUTIN** and **SILVETTE**, 80, 589
- See **SMITH**, 81, 407
- 82, 651
- See **CHANUTIN** and **SILVETTE**, 85, 179
- Simonsen, Daisy G.** See **KENDALL** and **SIMONSEN**, 80, 357
- The action of mercuric salts on cystine, 94, 323
- Simpson, George Eric, and Wells, Arthur H.** The effect of over-breathing and of breathing relatively high concentrations of carbon dioxide on the urinary excretion of water and chlorides, 76, 171
- Changes in the composition of urine brought about by sleep and other factors, 84, 393
- The effect of breathing relatively high concentrations of carbon dioxide on the urinary excretion of water, 84, 413
- Sinclair, Robert Gordon.** The rôle of the phospholipids of the intestinal mucosa in fat absorption. With additional data on the phospholipids of the liver, and smooth and skeletal muscle, 82, 117
- The metabolism of the phospholipids. I. The influence of diet on the amount and composition of the phospholipid fatty acids in various tissues of the cat, 86, 579
- The rate of phospholipid metabolism, 87, xxiii
- The metabolism of the phospholipids. II. The influence of growth on the phospholipid (and cholesterol) content of the white rat, 88, 575
- III. The comparative influence of various fats on the degree of unsaturation of the phospholipids and neutral fat in the tissues of the rat, 92, 245
- IV. The rate of phospholipid metabolism with special reference to the question of the intermediary rôle of the phospholipids in fat metabolism, 95, 393
- V. The relationship between the amount of fat ingested and the degree of unsaturation of the phospholipids and neutral fat in the tissues of the rat, 96, 103
- Relationship between degree of unsaturation and composition of lipids in animal tissues, 97, xxxiv
- Fat metabolism and the liver lipids, 100, lxxxvii

- Sinclair, Walton B. See GORTNER and SINCLAIR, 83, 681
- Skinner, C. E., and Gunderson, M. F. Production of vitamin A by a species of *Corynebacterium*, 97, 53
- Skinner, J. T., and Peterson, W. H. The iron and manganese content of feeding stuffs, 79, 679
- and —. The determination of manganese in animal materials, 88, 347
- , —, and Steenbock, H. The manganese metabolism of the rat, 90, 65
- , Steenbock, H., and Peterson, W. H. Design and use of a glass cage in anemia studies, 97, 227
- Slawson, Chester B. Crystallographic description of theelin, 87, 373
- . Crystallographic description of theelol, 91, 667
- Slight, David. See HILL, LONG, and SLIGHT, 92, lxxx
- Smalley, C. J. See AUSTIN, SMALLEY, and SANKSTONE, 92, xviii
- Smart, B. W. See DUNN and SMART, 89, 41
- . See DUNN, SMART, REDEMANN, and BROWN, 94, 599
- Smith, Anna Evelyn. See KIECH, LUCK, and SMITH, 90, 677
- Smith, Arthur H. See COOK and SMITH, 85, 251
- , Yudkin, Arthur M., Kriss, Max, and Zimmerman, Harry M. Vitamin A content of retinal and choroidal tissue, 92, xcii
- . See BROOKE and SMITH, 97, cv
- . See SWANSON and SMITH, 97, 745
- . See BROOKE and SMITH, 100, 105
- . See ARNIM, CLARKE, ANDERSON, and SMITH, 100, viii
- . See BROOKE and SMITH, 100, xxiii
- Smith, Donald N. See SHOHL, BROWN, ROSE, SMITH, and COZAD, 92, x, 711
- Smith, Frederick L., 2nd, and King, C. G. The preparation and storage of vitamin C concentrates from lemon juice, 94, 491
- Smith, H. Gregg. The composition of the unsaturated fatty acids of animal tissues, 92, xxxv
- . See FREYTAG and SMITH, 92, xcii
- . See FREYTAG and SMITH, 97, xxxviii
- . See SENGERS and SMITH, 100, 309, 319
- . See SENGERS and SMITH, 100, lxxxvii
- Smith, H. P., Groth, A. H., and Whipple, G. H. Bile salt metabolism. I. Control diets, methods, and fasting output, 80, 659
- and Whipple, G. H. Bile salt metabolism. II. Influence of meat and meat extractives, liver and kidney, egg yolk and yeast in the diet, 80, 671
- . See WHIPPLE and SMITH, 80, 685, 697

Smith, H. P.—*continued*.

- and Whipple, G. H. Bile salt metabolism. V. Casein, egg albumin, egg yolk, blood, and meat proteins as diet factors, 89, 689
- See WHIPPLE and SMITH, 89, 705
- and Whipple, G. H. Bile salt metabolism. VII. Indene, hydrindene, and isatin, 89, 719
- See WHIPPLE and SMITH, 89, 727
- and Whipple, G. H. Bile salt metabolism. IX. Eck fistula modifies bile salt output, 89, 739
- Smith, Homer W., and Silvette, Herbert. Note on the nitrogen excretion of camels, 78, 409
- The composition of the body fluids of elasmobranchs, 81, 407
- The excretion of ammonia and urea by the gills of fish, 81, 727
- The composition of the body fluids of the goosefish (*Lophius piscatorius*), 82, 71
- The inorganic composition of the body fluids of the Chelonia, 82, 651
- Metabolism of the lung-fish, *Protopterus aethiopicus*, 88, 97
- Smith, James H. C., and Spoehr, H. A. Carotene. I. The oxygen equivalent determined with potassium permanganate in pyridine solution, 86, 87
- and —. II. The volatile fatty acids obtained by the oxidation of carotene and xanthophyll, 86, 755
- Carotene. III. Hydrogenation and optical properties of carotene and its hydrogenated derivatives, 90, 597
- IV. The hydrogenation of carotenes obtained from different sources, of dihydrocarotene, and of lycopin, 96, 35
- Smith, Margaret Elizabeth. See SURE and SMITH, 82, 307
- See SURE and SMITH, 84, 727
- See SURE, KIK, and SMITH, 87, xlii
- See SURE, SMITH, KIK, and WALKER, 92, viii
- Smith, Maurice I. The differential extraction from dried brewers' yeast of the antineuritic (vitamin B₁) and growth-promoting (vitamin B₂) vitamins and their biological standardization. With a note on the relation of hemin to vitamin B₂, 100, 225
- Smith, Ralph G., and Sternberger, Helen R. Diffusible and non-diffusible blood serum calcium following intravenous injections of calcium salts, 96, 245
- Smullen, J. J. See TWEEDY and SMULLEN, 92, lv
- Smuts, D. B. See MITCHELL and SMUTS, 95, 263
- , Mitchell, H. H., and Hamilton, T. S. The relation between dietary cystine and the growth and cystine content of hair in the rat, 95, 283

- Smythe, C. V.** See COX, SMYTHE, and FISHBACK, 82, 95
 — and Schmidt, Carl L. A. Studies on the mode of combination of iron with certain proteins, amino acids, and related compounds, 88, 241
 —. The mechanism of iron catalysis in certain oxidations, 90, 251
 —. The titration of hydroxy organic acids in the presence of ferric and cupric salts, 92, 233
 —. See MICHAELIS and SMYTHE, 94, 329
- Snell, Albert M.** See GREENE and SNELL, 78, 691
- Snider, Ruth H.** See BLOOR and SNIDER, 87, 399
 — and Bloor, W. R. Fatty acids of liver lecithin, 97, xxxiii
 99, 555
- Sobel, Albert E., and Kramer, Benjamin.** The quantitative estimation of potassium in small amounts of serum, with a study of the cobalt-cysteine-hydrogen peroxide complex, 97, lxxxix
 — and —. A new colorimetric method for the quantitative estimation of small amounts of potassium, 100, 561
- Sobotka, Harry.** See LIGHTMAN and SOBOTKA, 85, 261
 —, Peck, S. M., and Kahn, Jos. Optically active 5,5'-phenylethylhydantoins, 97, lxxix
 —. See TUCHMAN and SOBOTKA, 98, 35
 —. See REINER and SOBOTKA, 100, 779
- Soderstrom, G. F.** See McCLELLAN, BIASOTTI, and HANNON, 78, 719
 —. See McCLELLAN, SPENCER, FALK, and DU BOIS, 80, 639
 —. See McCLELLAN, SPENCER, and FALK, 93, 419
- Sokoloff, B. F.** See PARFENTJEV, DEVRIENT, and SOKOLOFF, 92, 33
 —. See PARFENTJEV, SUNTZEFF, and SOKOLOFF, 93, 797
- Sollers, E.** See JENSEN, SCHOCK, and SOLLERS, 98, 93
- Sollmann, Torald.** See VON OETTINGEN and SOLLMANN, 85, 245
- Somach, Irving.** See BRUGER and SOMACH, 97, 23
- Sommer, Beatrice E.** See JACKSON, SOMMER, and ROSE, 80, 167
- Sommer, H. H.** See TITUS, SOMMER, and HART, 76, 237
- Somogyi, Michael.** The distribution of sugar in normal human blood, 78, 117
 — and Kramer, Hildegard V. The nature of blood sugar, 80, 733
 —. The nature of blood sugar. II, 83, 157
 —. A method for the preparation of blood filtrates for the determination of sugar, 86, 655
 —. Nitrogenous substances in zinc filtrates of human blood, 87, 339
 —. The use of heavy metal salts for the preparation of blood filtrates for analysis, 87, xxxii

Somogyi, Michael—*continued*.

- The use of copper and iron salts for the deproteinization of blood, 90, 725
- Note on the distribution of blood sugar, 90, 731
- The nature of blood sugar, 92, xxii
- The estimation of blood diastase, 97, lxxxvi
- See GOOD, KRAMER, and SOMOGYI, 100, 485
- See SHAFFER and SOMOGYI, 100, 695

Soule, Malcolm H. See ECKSTEIN and SOULE, 91, 395

Spanner, G. O. See PICKENS, SPANNER, and BAUMAN, 95, 505

- and Bauman, L. The behavior of cholesterol and other bile constituents in solutions of bile salts, 98, 181

Spannuth, John R., and Power, Marschelle H. Distribution of sugar in normal and diabetic blood, and a comparison of the direct and indirect methods of measuring the corpuscle sugar, 93, 343

Speer, John H., Wise, Edwin C., and Hart, Merrill C. The composition of spinach fat, 82, 105

- See HEYL, WISE, and SPEER, 82, 111

Spencer, Henry J. See MCCLELLAN, SPENCER, FALK, and DU BOIS, 80, 639

- See MCCLELLAN, SPENCER, and FALK, 93, 419

Sperry, Warren M. A method for studying the distribution of fecal lipids, 78, xlv

- See ROBSCHUIT-ROBBINS, ELDEN, SPERRY, and WHIPPLE, 79, 563

- See ELDEN, SPERRY, ROBSCHUIT-ROBBINS, and WHIPPLE, 79, 577

—, Elden, C. A., Robscheit-Robbins, Frieda S., and Whipple, G. H. Blood regeneration in severe anemia. XV. Liver fractions and potent factors. 81, 251

- Lipid excretion. V. A study of the partition of the fecal lipids with special reference to bacteria, 81, 299

- VII. The partition of fecal lipids in bile fistula dogs, 85, 455

— and Angevine, Robert W. The secretion of lipids into the intestine, 87, xxii

- The lipid content of the intestinal mucosa, 92, xxxiii

- Lipid excretion. VIII. The lipid content of the intestinal mucosa, 96, 759

— and Angevine, Robert W. Lipid excretion. IX. The secretion of lipids into the intestine, 96, 769

Spiegel-Adolf, Mona. Reversibility of protein denaturation in adsorption and elution, 97, xlv

Spoehr, H. A., and Strain, Harold H. The interconversion of hexoses by means of phosphates and the formation of glucose, 85, 365

- See SMITH and SPOEHR, 86, 87, 755
- and Strain, Harold H. The effect of weak alkalies on the trioses and on methylglyoxal, 89, 503
- See STRAIN and SPOEHR, 89, 527
- Sprinson, David. See BAUMANN, SPRINSON, and METZGER, 100, xiii
- Sprunt, Douglas H. The influence of Roentgen rays on the acid-base equilibrium, 92, 605
- Stadie, William C., and Hawes, Effie Ross. Studies on the oxygen-, acid-, and base-combining properties of blood. III. The validity of hydrogen ion activity determinations by the hydrogen electrode in systems containing carbonic acid, carbonates, hemoglobin, carbon monoxide hemoglobin, and methemoglobin, 77, 241
- and —. IV. The apparent first dissociation constant, pK'_1 , of carbonic acid and the activity coefficient of the bicarbonate ion in solutions of hemoglobin, methemoglobin, cyanhemoglobin, and nitric oxide hemoglobin at varying ionic strengths, 77, 265
- Studies on the oxygen-, acid-, and base-combining properties of blood. V. Extension of the Debye-Hückel theory of ionic interaction to hemoglobin, bicarbonate-sodium chloride systems, 77, 303
- and Hawes, Effie Ross. The rôle of the liquid junction potential in the electrometric determination of single ion activity coefficients, 78, xxix
- An electron tube potentiometer for the determination of pH with the glass electrode, 83, 477
- and Sunderman, F. William. A method for the determination of the freezing point depression of aqueous solutions particularly those containing protein, 91, 217
- and —. The osmotic coefficient of sodium in sodium hemoglobinate and of sodium chloride in hemoglobinsolution, 91, 227
- , O'Brien, Helen, and Laug, Edwin P. Determination of the pH of serum at 38° with the glass electrode and an improved electron tube potentiometer, 91, 243
- and —. Does any carbon dioxide in the blood exist as carbhemoglobin? 92, xxvii
- , Sunderman, F. William, O'Brien, Helen, and Williams, Priscilla. Further studies on the occurrence of carbhemoglobin in the blood, 97, xcvi
- and O'Brien, Helen. The kinetics of carbon dioxide reactions in buffer systems and blood, 100, lxxxviii
- Stander, H. J., Eastman, N. J., Harrison, E. P. H., Jr., and Cadden, J. F. The acid-base equilibrium of the blood in eclampsia, 85, 233

- Stare, F. J., and Elvehjem, C. A.**
The phosphorus partition in the blood of rachitic and non-rachitic calves, 97, 511
- and —. Cobalt in animal nutrition, 99, 473
- Stearn, Allen E., and Day, Alexander A.** A new method for determining the activity of certain oxidases, with a preliminary study of the potato oxidase, 85, 299
- . Stoichiometrical relations in the reactions between dye, nucleic acid, and gelatin, 91, 325
- Stearns, Genevieve, and Lewis, Howard B.** The metabolism of sulfur. XVII. The rate of oxidation of ingested cystine in the organism of the rabbit, 86, 93
- and **Boyd, Julian D.** Calcium and phosphorus metabolism in relation to certain bone diseases. I. Hypercalcuria, 87, xv
- and —. II. Hypocalcuria, 87, lvi
- and **Knowlton, G. Clinton.** The lack of relationship between the calcium, protein, and inorganic phosphorus of the serum of non-nephritic children, 92, xii, 639
- . The excretion of calcium in the urine of healthy infants and children, 97, lxiii
- Steel, Godfrey E.** See **BILLS, COX, and STEEL**, 84, 655
- . See **BILLS, McDONALD, BE-MILLER, STEEL, and NUSS-MEIER**, 93, 775
- Steele, T. Murray.** See **HUB-BARD and STEELE**, 84, 199
- Steenbock, H.** See **WADDELL, STEENBOCK, ELVEHJEM, and HART**, 77, 769
- . See **WADDELL, ELVEHJEM, STEENBOCK, and HART**, 77, 777
- . See **HART, STEENBOCK, WADDELL, and ELVEHJEM**, 77, 797
- . See **WADDELL and STEEN-BOCK**, 80, 431
- . See **ELMSLIE and STEENBOCK**, 82, 611
- . See **ELVEHJEM, STEENBOCK, and HART**, 83, 21, 27
- . See **WADDELL, STEENBOCK, and HART**, 83, 243
- . See **WADDELL, STEENBOCK, ELVEHJEM, and HART**, 83, 251
- . See **WADDELL, STEENBOCK, and HART**, 84, 115
- . See **HART, STEENBOCK, TEUT, and HUMPHREY**, 84, 359, 367
- . See **LINDOW, PETERSON, and STEENBOCK**, 84, 419
- , **Black, Archie, and Thomas, B. H.** Cereals and rickets. III. The comparative rickets-producing properties of corn, wheat, and oats, and the effect of irradiation and mineral supplements, 85, 585
- . See **HART, STEENBOCK, KLINE, and HUMPHREY**, 86, 145
- , **Hart, E. B., Riising, Blanche M., Hoppert, C. A., Basherov, S., and Humphrey, G. C.** Fat-soluble vitamins. xxviii

- The antirachitic value of cow's milk as modified by exposure of the cow to sunlight and to radiations from a quartz mercury vapor lamp,
87, 103
- , —, —, **Kletzien, S. W. F.**, and **Scott, H. T.** Fat-soluble vitamins. XXIX. Is antirachitic activation induced by ultraviolet radiations a panacea for negative calcium balances?
87, 127
- , —, **Hanning, Flora**, and **Humphrey, G. C.** Fat-soluble vitamins. XXX. The antirachitic value of cow's milk as modified by the feeding of irradiated yeast,
88, 197
- See **SKINNER, PETERSON**, and **STEENBOCK**,
90, 65
- See **PRUESS, PETERSON**, **STEENBOCK**, and **FRED**,
90, 369
- See **KLETZIEN, THOMAS**, **TEMPLIN**, and **STEENBOCK**,
92, ix
- See **ELVEHJEM, STEENBOCK**, and **HART**,
93, 197
- See **SKINNER, STEENBOCK**, and **PETERSON**,
97, 227
- , **Kletzien, S. W. F.**, and **Halpin, J. G.** The reaction of the chicken to irradiated ergosterol and irradiated yeast as contrasted with the natural vitamin D of fish liver oils,
97, 249
- See **KLETZIEN, TEMPLIN**, **STEENBOCK**, and **THOMAS**,
97, 265
- See **TEMPLIN** and **STEENBOCK**,
100, 209, 217
- See **BAUMANN, STEENBOCK**, and **INGRAHAM**,
100, xiii
- Steggerda, F. R.** See **McCLENDON, ANDERSON, STEGGERDA, CONKLIN**, and **WHITAKER**,
77, 413
- Steiger, Robert E.** See **LEVENE** and **STEIGER**,
76, 299
79, 95
- See **LEVENE, BASS**, and **STEIGER**,
81, 221
- See **LEVENE, BASS, ROTHEN**, and **STEIGER**,
81, 687
- See **LEVENE, BASS**, and **STEIGER**,
81, 697
- See **LEVENE, STEIGER**, and **BASS**,
82, 155
- See **LEVENE, BASS**, and **STEIGER**,
82, 167
- The formylation of amino acids,
86, 695
- See **LEVENE** and **STEIGER**,
86, 703
- See **LEVENE, ROTHEN, STEIGER**, and **OSAKI**,
86, 723
- See **LEVENE** and **STEIGER**,
93, 581
- See **LEVENE, STEIGER**, and **MARKER**,
93, 605
- See **LEVENE, STEIGER**, and **ROTHEN**,
97, 717
- See **LEVENE** and **STEIGER**,
98, 321
- Steiner, Alexander.** See **WEST, NORRIS**, and **STEINER**,
97, lxxxii
- , **Urban, Frank**, and **West, Edward S.** Iron and thorium precipitation of biological fluids for sugar and other analyses,
98, 289
- Stekol, Jakob A.** See **CERECEDO**,
93, 269

Stekol, Jakob A.—*continued.*

— and Cerecedo, Leopold R. Studies on the physiology of pyrimidines. V. On the effects of certain pyrimidines on the sulfur metabolism of the dog, 93, 275

— See CERECEDO, 93, 283

— See CERECEDO and STEKOL, 97, lx

— and Cerecedo, Leopold R. Studies on the physiology of pyrimidines. VII. The metabolism of isobarbituric acid in man, 100, 653, xc

Stenström, Wilhelm, and Lohmann, Anne. Effect of Roentgen radiation on solutions of tyrosine and cystine, 79, 673

Sternberger, Helen R. See SMITH and STERNBERGER, 96, 245

Stevens, P. G. See LEVENE and STEVENS, 87, 375
89, 471

Stewart, Dorothy. See OKEY and STEWART, 97, xxxix
99, 717

Stewart, Jean M. See OKEY, STEWART, and GREENWOOD, 87, 91

Stiebeling, H. K. See SHERMAN and STIEBELING, 83, 497
88, 683

Stiles, H. R., Peterson, W. H., and Fred, E. B. The nature of the acids produced in the fermentation of maize by *Clostridium acetobutylicum*, 84, 437

Still, Eugene U. See KERN, MONTGOMERY, and STILL, 93, 365

Stilz, Eleanor. See CAJORI and PEMBERTON, 76, 471

Stimson, Barbara B., and Hrubetz, M. Caroline. Changes in the oxygen capacity of the blood pigment of rabbits following partial hepatectomy, 78, 413

Stoddard, James L., and Drury, Phoebe E. A titration method for blood fat, 84, 741

Stone, J. B., and Alsberg, Carl L. Observations on the rennin coagulation of milk. The effect of hirudin, of heparin, of cephalin, and of fat removal, 78, 557

Strain, Harold H. See SPOEHR and STRAIN, 85, 365
89, 503

— and Spoehr, H. A. The effect of amines on the conversion of trioses into methylglyoxal, 89, 527

Strauch, Clara M. See MORGAN, STRAUCH, and BLUME, 85, 385

Strauss, Margaret B. See BUELL and STRAUSS, 97, lkv
— See BUELL, STRAUSS, and ANDRUS, 98, 645

Streeter, L. R. See PEARCE and STREETER, 92, 743

Strong, F. M. See PRUESS and STRONG, 100, lxxx

Stuart, E. H. See SURE, 76, 673, 685
80, 289, 297

Stucky, Charles J. Some observations on nutritional anemia, 97, xiii

Stull, Arthur. A chemical study of Type III pneumococci, 82, 641

- , Cooke, Robert A., and Chobot, Robert. The allergically active substance in ragweed pollen. A chemical and biological study, 92, 569
- Subbarow, Yellapragada. See FISKE and SUBBAROW, 81, 629
- Sugimoto, Koichi. Iodine in gorgonian corals, 76, 723
- Sullivan, M. X. The cystine content of phaseolin, 78, xv
- , Hess, W. C., and Chase, W. D. The estimation of cystine in tissue and urine, 87, xxiv
- , —, and Sebrell, W. H. Preliminary studies on amino acid toxicity and amino acid balance, 92, lxvii
- and —. Cystine studies in arthritis, 97, xxv
- See HESS and SULLIVAN, 99, 95
- Methods for estimating thiocyanates in urine, 100, xci
- Sumner, James B., and Hand, David B. Crystalline urease. II, 76, 149
- and —. The isoelectric point of crystalline urease, 78, xxxiv
- and Holloway, Rachel G. Crystalline urease. III. Variations in jack bean meal as affecting the yield of crystals, 79, 489
- , Hand, David B., and Holloway, Rachel G. Studies of the intermediate products formed during the hydrolysis of urea by urease, 91, 333
- See KIRK and SUMNER, 94, 21
- , Kirk, J. Stanley, and Howell, Stacey F. The digestion and inactivation of crystalline urease by pepsin and by papain, 97, lxxxvii
- , 98, 543
- Sunderman, F. William. A sixty cycle conductivity assembly for biological fluids, 88, 61
- See STADIE and SUNDERMAN, 91, 217, 227
- and Williams, Priscilla. Diminution in chloride measurement after drying blood and tissues, 92, 99
- Diminution in chloride measurement after drying blood and tissues, 92, lxxi
- The osmotic behavior of water of blood serum, 96, 271
- See STADIE, SUNDERMAN, O'BRIEN, and WILLIAMS, 97, xcvi
- The analysis of chloride in tissues, 100, xci
- Suntzeff, V. D. See PARFENTJEV, SUNTZEFF, and SOKOLOFF, 93, 797
- Supplee, G. C., Flanigan, G. E., Kahlenberg, O. J., and Hess, Alfred F. The comparative antirachitic and calcifying properties of irradiated milk and milk derivatives, 91, 773
- , Kahlenberg, O. J., and Flanigan, G. E. The growth-promoting properties (vitamin B complex) of the concentrated water-soluble portion of milk, 93, 705

Supplee, G. C.—*continued*.

—, Dorcas, M. J., and Hess, Alfred F. Irradiated milk: the energy requirements for antirachitic activation, 94, 749

—, Hanford, Zaida M., Dorcas, M. J., and Beck, H. H. Irradiated milk: the amount of vitamin D and its rate of formation, 95, 687

—, Bender, R. C., and Dorcas, M. J. Irradiated milk: the amount of energy required to prevent rickets in chickens, 97, 63

—, Beck, H. H., and Dorcas, M. J. Irradiated milk: the influence of the intensity and character of the radiations on the antirachitic potency,

98, 769

Sure, Barnett. Dietary requirements for fertility and lactation. XIII. Storage of fat-soluble vitamins for lactation, with some observations on the cod liver oil requirements of nursing young, 76, 659

—, XIV. A quantitative biological method for the study of vitamin B requirements for lactation, 76, 673

—, XV. The inefficiency of the lactating mother (*Mus norvegicus albinus*) in secreting vitamin B in the milk, and the relation of this phenomenon to infant mortality (detailed report), 76, 685

—, Kik, M. C., and Walker, Dorothy J. Vitamin requirements of nursing young. IV. (a) A quantitative biological method for the study of vitamin

B requirements of nursing young. (b) Marked anhydremia associated with marked disturbance in hematopoietic function of nursing young suffering from vitamin B deficiency, 78, xviii

—, Dietary requirements for fertility and lactation. XIX. Does copper supplement vitamin B for lactation? 80, 289

—, XX. A differentiation of the vitamin B complex in rice polishings as evidenced in studies of lactation, 80, 297

—, Kik, M. C., and Walker, Dorothy J. Vitamin requirements of nursing young. VI. Anhydremia associated with disturbance in hematopoietic function in nursing young of the albino rat suffering from a deficiency of the vitamin B complex, 82, 287

— and Smith, Margaret Elizabeth. Effect of vitamin deficiencies on carbohydrate metabolism. I. Hypoglycemia associated with anhydremia and disturbance in hematopoietic function in nursing young of the albino rat suffering from uncomplicated vitamin B deficiency, 82, 307

—, Kik, M. C., and Walker, Dorothy J. The effect of avitaminosis on hematopoietic function. I. Vitamin A deficiency, 83, 375

—, —, and —. II. Vitamin B deficiency, 83, 387

—, —, and —. III. Vitamin E deficiency, 83, 401

- and **Smith, Margaret Elizabeth**. The effect of vitamin deficiencies on carbohydrate metabolism. II. The influence of uncomplicated vitamin B deficiency on concentration of true sugar, reducing non-sugar, and alkaline reserve in the blood of the albino rat, 84, 727
- , **Kik, M. C.**, and **Smith, Margaret Elizabeth**. Further studies on the biochemistry of avitaminosis, 87, xlii
- and **Walker, Dorothy J.** Dietary requirements for fertility and lactation. XXIII. The specific effect of vitamin B on lactation, 91, 69
- , **Smith, Margaret Elizabeth**, **Kik, M. C.**, and **Walker, Dorothy J.** The specific effect of vitamin B on lactation, growth, and blood chemistry, 92, viii
- . Avitaminosis. XI. The specific effect of vitamin B on growth as evidenced by the use of vitamin B concentrates, 97, 133
- , **Kik, M. C.**, and **Church, Anna E.** Further studies on the specific effect of vitamin B on growth and on lipid metabolism in avitaminosis, 97, vi
- Svedberg, Andrea**. See **FOLIN**, 86, 179
- . See **FOLIN** and **SVEDBERG**, 88, 77, 85, 715
- Svirbely, Joseph L.**, and **King, C. G.** The preparation of vitamin C concentrates from lemon juice, 94, 483
- Swanson, Pearl P.**, and **Smith, Arthur H.** Total nitrogen of the blood plasma of normal albino rats at different ages, 97, 745
- and — . Inorganic salts in nutrition. IV. Changes induced in the blood by a ration deficient in inorganic constituents, 98, 479
- and — . V. Progressive changes in the blood of rats maintained upon a ration poor in inorganic salts, 98, 499
- Swanson, W. W.** See **SCHLUTZ**, **SWANSON**, and **ZIEGLER**, 78, vii
- Sweet, J. E.**, and **Quick, Armand J.** Quantitative studies of β -oxidation. III. The fate of phenylbutyric acid in depancreatized dogs, 80, 527
- Sweetman, Marion Deyoe**, and **Palmer, Leroy S.** Insects as test animals in vitamin research. I. Vitamin requirements of the flour beetle, *Tribolium confusum* Duval, 77, 33
- Swingle, W. W.** See **HARROP**, **SWINGLE**, and **PIFFNER**, 92, lvi
- . See **PIFFNER**, **VARS**, **BOTT**, and **SWINGLE**, 97, xlvi
100, lxxviii
- Szent-Györgyi, Albert**. On the function of hexuronic acid in the respiration of the cabbage leaf, 90, 385
- Talbott, J. H.**, **Fölling, A.**, **Henderson, L. J.**, **Dill, D. B.**, **Edwards, H. T.**, and **Berggren**,

Talbott, J. H.—*continued.*

Ruth E. L. Studies in muscular activity. V. Changes and adaptations in running, 78, 445

— See **DILL, BOCK, LAWRENCE, TALBOTT, and HENDERSON,** 81, 551

— See **HURXTHAL, BOCK, TALBOTT, and DILL,** 81, 681

— See **DILL, TALBOTT, EDWARDS, and FÖLLING,** 87, xxvi

—, **Henderson, L. J., Edwards, H. T., and Dill, D. B.** Factors limiting the capacity of a dog for work, 97, xl

— See **DILL, EDWARDS, and TALBOTT,** 97, lviii

— See **GREEN and TALBOTT,** 100, 1

Tange, Ume, and McCollum, E. V. The allophanates of certain sterols, 76, 445

Tashiro, Shiro, and Tietz, Esther Bogen. A simple test for levulose (ketose?) in glucides, 87, 307

— and **Schmidt, L. H.** Further studies in the relationship between thyroxine and bile salts, 92, lviii

Tauber, Henry. Studies on crystalline urease. Inactivation by ultra-violet radiation, sunlight with the aid of a photodynamic agent, and inactivation by trypsin, 87, 625

— and **Kleiner, Israel S.** Studies on crystalline urease. III. The toxicity of crystalline urease, 92, 177

— and —. Studies on rennin. I. The purification of rennin and its separation from pepsin, 96, 745

— See **KLEINER and TAUBER,** 96, 755
99, 241

— and **Kleiner, Israel S.** A method for the determination of monosaccharides in the presence of disaccharides and its application to blood analysis, 99, 249

— The chemical nature of emulsin, rennin, and pepsin, 99, 257

— See **KLEINER and TAUBER,** 100, 749

Taylor, F. A. See **LEVENE and TAYLOR,** 80, 227

— and **Levene, P. A.** Oxidation of lignoceric acid, 80, 609

— and —. On the cerebronic acid fraction, 84, 23

— The tetracosanic acid of peanut oil, 91, 541

Taylor, F. H. L. See **YOUNG and TAYLOR,** 84, 377

— The determination of potassium in blood serum, 87, 27

Taylor, M. W. See **RUSSELL, TAYLOR, and WILCOX,** 99, 109

Taylor, Nelson W., and Sheard, Charles. Microscopic and x-ray investigations on the calcification of tissue, 81, 479

Templin, Vera M. See **KLETZIEN, THOMAS, TEMPLIN, and STEENBOCK,** 92, ix

— See **STEENBOCK, KLETZIEN, and HALPIN,** 97, 249

— See **KLETZIEN, TEMPLIN, STEENBOCK, and THOMAS,** 97, 265

— and **Steenbock, H.** Vitamin D and the conservation of calcium in the adult. II. The

- effect of vitamin D on calcium conservation in adult rats maintained on low calcium diets, 100, 209
- and —. III. The effect of vitamin D on the teeth of rats, 100, 217
- Teut, E. C. See HART, STEENBOCK, TEUT, and HUMPHREY, 84, 359, 367
- Thalheimer, E. J. See FRIEDENSON, ROSENBAUM, THALHEIMER, and PETERS, 80, 269
- Thayer, Sidney A., Jordan, C. N., and Doisy, Edward A. Improved procedure for the extraction of the ovarian hormone. II. Some corrections and additions, 79, 53
- See DOISY, VELER, and THAYER, 86, 499
- See VELER, THAYER, and DOISY, 87, 357
- See DOISY and THAYER, 91, 641
- , Levin, Louis, and Doisy, Edward A. Characterization of theelol, 91, 655
- , —, and —. Theelin. Some physical and chemical properties, 91, 791
- and MacCorquodale, D. W. The preparation and bioassay of theelol, 97, liii
- See MACCORQUODALE, THAYER, and DOISY, 99, 327
- See LEVIN, MACCORQUODALE, THAYER, and DOISY, 100, lxii
- Theis, Edwin R. The lipid distribution in normal and abnormal liver tissues. I. Beef livers, 76, 107
- II. The effect of insulin on the lipids of rabbit liver, 77, 75
- III. The effect of disease upon the lipid distribution in human liver tissue, 82, 327
- Thimann, Kenneth V. See BORSOOK and THIMANN, 98, 671
- Thomas, B. H. See STEENBOCK, BLACK, and THOMAS, 85, 585
- See KLETZIEN, THOMAS, TEMPLIN, and STEENBOCK, 92, ix
- See KLETZIEN, TEMPLIN, STEENBOCK, and THOMAS, 97, 265
- Thomas, C. I. See RAY, BLAIR, and THOMAS, 98, 63
- Thomas, Giles W. The influence of hemocyanin on the distribution of chloride between sea water and the blood of *Limulus polyphemus*, 83, 71
- Thomas, Rachel. See MORGAN, KIMMEL, THOMAS, and SAMISCH, 100, lxxi
- Thompson, Howard E. See BEARD, BURK, THOMPSON, and GOLDBLATT, 96, 307
- Thompson, R. B. See HELLER, HUNTER, and THOMPSON, 97, 127
- Thomson, D. L. See COLLIP, BROWNE, and THOMSON, 97, xvii
- and Pugsley, L. I. The mechanism of parathyroid hormone action, 97, xcvi
- See COLLIP, THOMSON, and SELYE, 100, xxxi, xxxii
- Thor, Clifford, J. B., and Gortner, Ross Aiken. Sulfur in proteins.

- V. The effect of alkalies upon cystine, with special reference to the action of sodium hydroxide, 99, 383
- Tietz, Esther Bogen. See TASHIRO and TIETZ, 87, 307
- Tilt, Jennie. The basal metabolism of young college women in Florida, 86, 635
- Tipson, R. Stuart. See LEVENE and TIPSON, 90, 89
92, 109
93, 623, 631
94, 809
97, 491
- Titherington, R. J., and Morse, Withrow. Experiences with the phosphatase described by Robison, 78, xvi
- Titus, R. W., Sommer, H. H., and Hart, E. B. The nature of the protein surrounding the fat globules in milk, 76, 237
- , Cave, H. W., and Hughes, J. S. The manganese-copper-iron complex as a factor in hemoglobin building, 80, 565
- and Hughes, J. S. The storage of manganese and copper in the animal body and its influence on hemoglobin building, 83, 463
- Todd, W. R. See KEMMERER and TODD, 94, 317
- See ELVEHJEM and HART, 95, 363
- and Elvehjem, C. A. The determination of zinc in biological materials, 96, 609
- Toennies, Gerrit, and Lavine, Theodore F. On the optical rotation of *l*-cystine. Determination of its value for the sodium and mercury lines and of the temperature factor, 89, 153
- and —. Preparation and properties of crystallized alkali salts of *l*-cystine, 90, 203
- and —. The oxidation of cystine in non-aqueous media. I. The solubility and stability of cystine in non-aqueous acid-base systems, 100, 463
- and —. The non-hydrolytic oxidation of cystine, 100, xci
- Tolstoi, Edward. The effect of an exclusive meat diet lasting one year on the carbohydrate tolerance of two normal men, 83, 747
- The effect of an exclusive meat diet on the chemical constituents of the blood, 83, 753
- Tongberg, Carl O. See CONANT, ALLES, and TONGBERG, 79, 89
- See CONANT and TONGBERG, 86, 733
88, 701
- Torbert, Harold C. See KOCHER and TORBERT, 95, 427
- Torbet, Virginia, and Bradley, H. C. Studies of peptic activity. The liberation of arginine and tyrosine complexes in peptic proteolysis, 92, lxxvii
- and —. The unmasking of arginine in peptic digestion, 97, cx
- Torigoe, Masamichi. See TWEEDY and TORIGOE, 97, xlviii
99, 155

- Toscani, Vincent.** See McCLELLAN, BIASOTTI, and HANNON, 78, 719
- See McCLELLAN, SPENCER, FALK, and DU BOIS, 80, 639
- , See McCLELLAN and TOSCANI, 80, 653
- See McCLELLAN, RUPP, and TOSCANI, 87, 669
- Tourtellotte, Dee.** See HART, TOURTELLOTTE, and HEYL, 76, 143
- See SHAMBAUGH, LEWIS, and TOURTELLOTTE, 92, 499
- Trimble, Harry C., and Maddock, Stephen J.** A study of the effect of insulin upon the sugar content of erythrocytes, including a comparison of the direct and indirect methods of measurement, 78, 323
- and —. The fluctuations of the capillary blood sugar in normal young men during a twenty-four hour period (including a discussion of the effect of sleep and of mild exercise), 81, 595
- and Carèy, Benjamin W., Jr. On the true sugar content of skin and of muscle in diabetic and non-diabetic persons, 90, 655
- , —, and Maddock, Stephen J. The rate of absorption of glucose from the gastrointestinal tract of the dog, 100, 125
- Tripoli, Carlo J.** See BEARD and TRIPOLI, 100, xiv
- Tripp, Francis.** See HOLMES and TRIPP, 97, ix
- Trost, John F.** See HAUGE and TROST, 80, 107
86, 167
- Tuchman, L. R., and Sobotka, Harry.** A comparison of the Wu and Kjeldahl methods of serum protein determination, 98, 35
- and Reiner, Miriam. The cystine content of human serum proteins, 100, 775
- Tufts, Elma V.** See GREENBERG, LUCIA, MACKAY, and TUFTS, 100, 139
- Turner, Abby H.** The validity of determinations of the colloid osmotic pressure of serum, 96, 487
- Turner, Mary E.** A simplification of the Okey method for the determination of cholesterol, 92, xci
- A simplification of the Okey method for the determination of cholesterol by oxidation of the digitonide, 92, 495
- A study of anisotropic substances in the urine, 100, xcii
- Turner, R. G.** See ROCKWOOD, TURNER, and PFIFFNER, 83, 289
- A microcolorimetric method for the quantitative estimation of iodine in blood, 87, xxix
88, 497
- Blood alcohol estimation and its relation to intoxication, 92, lxxxvi
- and Matthews, C. W. The iodine content of blood in certain pathological conditions, 92, lxxxviii

Turner, R. G.—*continued.*

- The iodine content of certain pathological bloods in a goitrous region (Detroit, Michigan),

97, civ

Turner, William A., and Hartman,

Arthur M. Calcium and phosphorus metabolism in dairy cows. III. The adequate ration for high producing cows and the effect of exercise on calcium, phosphorus, and nitrogen balances,

78, xxvii

—, **Kane, E. A., and Hale, W. S.**

The comparative effectiveness, in a cow's ration, of supplements of phosphorus in the form of orthophosphoric acid, mono-, di-, and trisodium phosphate,

92, xiv

Tuta, J. A. See **HANKE** and **TUTA**,

78, xxxvi

Tuthill, Elizabeth. See **BUTLER**

and **TUTHILL**,

93, 171

Tweedy, Wilbur R., and Chandler,

S. B. Studies on the blood calcium of normal and parathyroidectomized albino rats,

78, lxxiii

- Studies on the plasma calcium-raising principle of bovine parathyroid glands. I. A method of preparation and some observations on the yield, solubility, and stability of the product,

88, 649

— and **Smullen, J. J.** Studies on the plasma calcium-raising principle of bovine parathyroid glands. II. Attempts at purification,

92, lv

— and **Torigoe, Masamichi.** Reversible inactivation of the

plasma calcium-increasing principle of bovine parathyroid glands,

97, xlviii

— and —. Chemical studies on a parathyroid hormone,

99, 155

Tyner, James. See **HUBBARD**, **MUNFORD**, **TYNER**, and **ALLISON**,

92, xxix

U

Ullmann, H. J. See **BISCHOFF**,

ULLMANN, **HILL**, and **LONG**,

85, 675

— See **BISCHOFF**, **MAXWELL**, and **ULLMANN**,

92, lxxx

97, cii

Underhill, F. Aline, Orten, James

M., and Lewis, Robert C. The inability of metals other than copper to supplement iron in curing the nutritional anemia of rats,

91, 13

— See **ORTEN**, **UNDERHILL**, and **LEWIS**,

96, 1

— See **ORTEN**, **UNDERHILL**, **MUGRAGE**, and **LEWIS**,

96, 11

— See **GERAGHTY**, **UNDERHILL**, **ORTEN**, and **LEWIS**,

99, 451

— See **ORTEN**, **UNDERHILL**, **MUGRAGE**, and **LEWIS**,

99, 457, 465

—, **Orten, James M., Mugrage, Edward R., and Lewis, Robert C.** The effect of the prolonged feeding of a milk-iron-copper diet to rats,

99, 469

Underhill, Frank P., and Dimick,

Alice. The production of hyperglycemia by subcutaneous injections of sodium arsenite in the rabbit,

76, 163

- and Petrelli, Joseph. The influence of choline upon blood sugar content, 81, 159
- and Gross, Erwin G. Is there a relationship between the spleen and calcium metabolism? 81, 163
- See KAPSINOW and UNDERHILL, 82, 377
- Upson, Fred W. See DEGERING and UPSON, 94, 423
- Urban, Frank. Liquid junction potentials of concentrated sodium hydroxide solutions, 87, xix
- and Shaffer, Philip A. The acidic property of sugars, 94, 697
- See STEINER, URBAN, and WEST, 98, 289
- and Williams, R. D. The acidic property of sugars. II, 100, 237
- Uyei, Nao, and Anderson, R. J. The chemistry of the lipoids of tubercle bacilli. XXVI. Separation of the lipid fractions from the leprosy bacillus, 94, 653
- See ANDERSON and UYEI, 97, 617
- Vahlteich, Ella McCollum. See ROSE and VAHLTEICH, 96, 593
- Vahlteich, H. W. A study of the action of trypsin on casein, 82, 737
- Valdecasas, José G. See OCHOA and VALDECASAS, 81, 351
- Van Alstyne, Margaret. See WRIGHT and VAN ALSTYNE, 93, 71
- Van Donk, Evelyn. See WADDELL, ELVEHJEM, STEENBOCK, and HART, 77, 777
- See HART, STEENBOCK, WADDELL, and ELVEHJEM, 77, 797
- See WADDELL and STEENBOCK, 80, 431
- See WADDELL, STEENBOCK, and HART, 83, 243
- See WADDELL, STEENBOCK, ELVEHJEM, and HART, 83, 251
- See WADDELL, STEENBOCK, and HART, 84, 115
- See ELVEHJEM, STEENBOCK, and HART, 93, 197
- Van Etten, Cecil. See DU VIGNEAUD, SEALOCK, and VAN ETTEN, 98, 565
- Van Slyke, Donald D. See HAWKINS, MACKEY, and VAN SLYKE, 78, xxiii
- , Sendroy, Julius, Jr., Hastings, A. Baird, and Neill, James M. Studies of gas and electrolyte equilibria in blood. X. The solubility of carbon dioxide at 38° in water, salt solution, serum, and blood cells, 78, 765
- and —. Studies of gas and electrolyte equilibria in blood. XI. The solubility of hydrogen at 38° in blood serum and cells, 78, 801
- and Hiller, Alma. Gasometric determination of hemoglobin by the carbon monoxide capacity method, 78, 807
- See HASTINGS, SENDROY, and VAN SLYKE, 79, 183

Van Slyke, Donald D.—*continued*.

- See HASTINGS, SENDROY, MCINTOSH, and VAN SLYKE, 79, 193
- and Hawkins, James A. A gasometric method for determination of reducing sugars, and its application to analysis of blood and urine, 79, 739
- , Hastings, A. Baird, Hiller, Alma, and Sendroy, Julius, Jr. Studies of gas and electrolyte equilibria in blood. XIV. The amounts of alkali bound by serum albumin and globulin, 79, 769
- and Sendroy, Julius, Jr. Studies of gas and electrolyte equilibria in blood. XV. Line charts for graphic calculations by the Henderson-Hasselbalch equation, and for calculating plasma carbon dioxide content from whole blood content, 79, 781
- See HAWKINS and VAN SLYKE, 81, 459
- and Hawkins, James A. Gasometric determination of fermentable sugar in blood and urine, 83, 51
- The determination of acetone bodies in blood and urine. Reply to criticisms by E. C. Smith, 83, 415
- Manometric determination of primary amino nitrogen and its application to blood analysis, 83, 425
- The manometric determination of urea in blood and urine by the hypobromite reaction, 83, 449
- and Hiller, Alma. Gasometric determination of methemoglobin, 84, 205
- and —. Gasometric control of standard solutions for the Palmer hemoglobin method, 84, 211
- and Sendroy, Julius, Jr. Gasometric determination of oxalic acid and calcium, and its application to serum analysis, 84, 217
- See HAWKINS and VAN SLYKE, 84, 243
- and Hawkins, James A. Studies of gas and electrolyte equilibria in blood. XVI. The evolution of carbon dioxide from blood and buffer solutions, 87, 265
- and Sendroy, Julius, Jr. Manometric analysis of gas mixtures. I. The determination, by simple absorption, of carbon dioxide, oxygen, and nitrogen in mixtures of these gases, 95, 509
- , —, and Liu, Shih Hao. Manometric analysis of gas mixtures. II. Carbon dioxide by the isolation method, 95, 531
- , —, and —. III. Manometric determination of carbon dioxide tension and pH, of blood, 95, 547
- and Hanke, Martin E. Manometric analysis of gas mixtures. IV. Hydrogen and oxygen by combustion, 95, 569
- and —. V. Hydrogen by absorption with Paal's picrate-palladium solution, 95, 587

- , Page, Irvine H., and Kirk, Esben. Manometric microdetermination of carbon in organic substances, 100, xciii
- Varley, J. H. See MORRELL, VARLEY, HART, and SCHWOCH, 78, lxxviii
- Vars, Harry M. See EAGLES and VARS, 80, 615
- . See PFIFFNER, VARS, BOTT, and SWINGLE, 97, xlv
- . See PFIFFNER, VARS, BOTT, and SWINGLE, 100, lxxviii
- . Oxidation product of proteins, methylsulfonic acid, 100, xciii
- Veler, Clement D. See DOISY, VELER, and THAYER, 86, 499
- , Thayer, Sidney A., and Doisy, Edward A. The preparation of the crystalline follicular ovarian hormone: theelin, 87, 357
- Venning, Eleanor M. See LONG and VENNING, 96, 397
- Vickery, Hubert Bradford, and Leavenworth, Charles S. A note on the crystallization of free lysine, 76, 437
- and — . A note on the crystallization of free arginine and histidine, 76, 701
- and — . Modifications of the method for the determination of the basic amino acids of proteins. The bases of edestin, 76, 707
- and — . On the separation of histidine and arginine. IV. The preparation of histidine, 78, 627
- and — . The basic amino acids of horse hemoglobin, 79, 377
- and Pucher, George W. The determination of ammonia and amide nitrogen in tobacco by the use of permutit, 83, 1
- and Leavenworth, Charles S. The separation of cystine from histidine: the basic amino acids of human hair, 83, 523
- and Pucher, George W. The determination of "free nicotine" in tobacco: the apparent dissociation constants of nicotine, 84, 233
- and Block, Richard J. The basic amino acids of wool, 86, 107
- and Leavenworth, Charles S. The behavior of cystine with silver salts, 86, 129
- and Pucher, George W. A source of error in the determination of amide⁹ nitrogen in plant extracts, 90, 179
- and — . The non-volatile organic acids of green tobacco leaves, 90, 637
- and Block, Richard J. The basic amino acids of silk fibroin. The determination of the basic amino acids yielded by proteins, 93, 105
- . See BLOCK and VICKERY, 93, 113
- and Cook, Charles A. The preparation of crystalline ornithine. The picrates and mono-sulfates of ornithine, 94, 393

- Vickery, Hubert Bradford—*continued*,
 — and White, Abraham. The determination of cystine, 97, xviii
 —, Pucher, George W., and Wakeman, Alfred J. The determination of nitrate nitrogen in plant tissues, 97, lxxxix
 —. See HANNA, VICKERY, and PUCHER, 97, 351
 —. See PUCHER, VICKERY, and WAKEMAN, 97, 605
 — and White, Abraham. The use of cysteine cuprous mercaptide in the determination of cystine, 99, 701
 du Vigneaud, Vincent, Audrieth, L. F., and Loring, Hubert S. The reduction of cystine in liquid ammonia by metallic sodium, 87, xxx
 —. The "heat precipitate" of crystalline insulin, 92, liv
 —, Fitch, Alice, Pekarek, E., and Lockwood, W. Wayne. The inactivation of crystalline insulin by cysteine and glutathione, 94, 233
 —. See HOLLANDER and DU VIGNEAUD, 94, 243
 — and Meyer, Curtis E. Isolation of methionine by enzymatic hydrolysis, 94, 641
 — and Sealock, Robert Ridgely. The racemization of acetyl-*l*-tryptophane, 96, 511
 —. See LORING and DU VIGNEAUD, 97, xxiv
 — and Meyer, Curtis E. The racemization of amino acids in aqueous solution by acetic anhydride, 98, 295
 —. See PIERCE, 98, 509
 —, Sealock, Robert Ridgely, and Van Etten, Cecil. The availability of *d*-tryptophane and its acetyl derivative to the animal body, 98, 565
 —, Dorfmann, Ralph, and Loring, Hubert S. A comparison of the growth-promoting properties of *d*- and *l*-cystine, 98, 577
 —. See BUTZ and DU VIGNEAUD, 99, 135
 — and Meyer, Curtis E. The temporary formation of the azlactone ring in the racemization of acyl derivatives of amino acids with acetic anhydride, 99, 143
 —, Sealock, Robert Ridgely, Sifferd, R. H., Kamm, Oliver, and Grote, Irvine W. Some chemical properties of highly purified preparations of pitresin and pitocin, 100, xciv
 du Vigneaud, Z. See PIERCE, 98, 509
 Villiaume, Edward L. See CORI, VILLIAUME, and CORI, 87, 19
 Virtue, Robert W., and Lewis, Howard B. The metabolism of *dl*-methionine in the rabbit, 100, xc v
 Visscher, Maurice B. See MULDER, PHILLIPS, and VISSCHER, 98, 269
 Voegtlin, Carl. See JOHNSON and VOEGLIN, 89, 27
 —, Johnson, J. M., and Rosenthal, Sanford M. The oxidation catalysis of crystalline glutathione with particular reference to copper, 93, 435

W

- Waddell, J., Steenbock, H., Elvehjem, C. A., and Hart, E. B. Iron in nutrition. V. The availability of the rat for studies in anemia, 77, 769
- , Elvehjem, C. A., Steenbock, H., and Hart, E. B. Iron in nutrition. VI. Iron salts and iron-containing ash extracts in the correction of anemia, 77, 777
- . See HART, STEENBOCK, WADDELL, and ELVEHJEM, 77, 797
- and Steenbock, H. The destruction of vitamin E in a ration composed of natural and varied foodstuffs, 80, 431
- , —, and Hart, E. B. Iron in nutrition. VIII. The ineffectiveness of high doses of iron in curing anemia in the rat, 83, 243
- , —, Elvehjem, C. A., and Hart, E. B. Iron in nutrition. IX. Further proof that the anemia produced on diets of whole milk and iron is due to a deficiency of copper, 83, 251
- , —, and Hart, E. B. Iron in nutrition. X. The specificity of copper as a supplement to iron in the cure of nutritional anemia, 84, 115
- Wade, Nelson J., Katzman, Philip A., and Jorgensen, Myron. The effects of the administration of extracts of hypophysis and of urine from pregnant cases to hypophysectomized rats, 100, xevi
- Waggoner, C. Stanley. See DRABKIN and WAGGONER, 89, 51
- Wakefield, E. G. The colorimetric determination of total and inorganic sulfates in blood serum, urine, and other body fluids, 81, 713
- and Power, Marschelle H. The determination of inorganic and conjugated sulfates in biological fluids, 87, xv
- . See GREENE, BOLLMAN, KEITH, and WAKEFIELD, 91, 203
- Wakeham, Glen, and Hansen, Louis O. The basal metabolic rates of vegetarians, 97, 155
- Wakeman, A. Maurice. See MOORE, LAVIETES, WAKEMAN, and PETERS, 91, 373
- Wakeman, Alfred J. See VICKERY, PUCHER, and WAKEMAN, 97, lxxxix
- . See PUCHER, VICKERY, and WAKEMAN, 97, 605
- Walden, George B., and Clowes, G. H. A. On a method whereby the principle which is effective in the treatment of pernicious anemia may be obtained from liver in substantially larger amount, 97, xi
- Walker, Arthur M. See RICHARDS and WALKER, 87, 479
- . Comparisons of total molecular concentration of glomerular urine and blood plasma from the frog and from *Necturus*, 87, 499
- . See BAYLISS and WALKER, 87, 523

- Walker, Arthur M.**—*continued.*
- and **Elsom, Kendall A.** A quantitative study of the glomerular elimination of urea in frogs, 91, 593
- , **Ellinwood, E. H.**, and **Reisinger, John A.** Reducing substances and phosphates in glomerular urine, aqueous humor, cerebrospinal fluid, and blood plasma of frogs and *Necturi*, 97, lxxii
- Walker, Dorothy J.** See **SURE**, 76, 659, 673, 685
- See **SURE**, **KIK**, and **WALKER**, 78, xviii
- See **SURE**, 80, 289, 297
- See **SURE**, **KIK**, and **WALKER**, 82, 287
- 83, 375, 387, 401
- See **SURE** and **WALKER**, 91, 69
- See **SURE**, **SMITH**, **KIK**, and **WALKER**, 92, viii
- Walker, J. C.** See **LINK**, **ANGELL**, and **WALKER**, 81, 369
- See **LINK**, **DICKSON**, and **WALKER**, 84, 719
- See **LINK** and **WALKER**, 100, 379
- Walker, Reed.** See **NELSON**, **WALKER**, and **JONES**, 92, vi
- 97, vi
- Wallen-Lawrence, Zonja.** The fractionation of the gonad-stimulating substance of the anterior lobe of the pituitary body, 100, xcvi
- Waller, Dorothy S.** See **WILEY**, **WILEY**, and **WALLER**, 97, lvi
- Walti, A.** See **LEVENE** and **WALTI**, 77, 685
- 78, 23
- 79, 363
- See **LEVENE**, **RAYMOND**, and **WALTI**, 82, 191
- See **LEVENE** and **WALTI**, 84, 39
- 88, 771
- 90, 81
- 94, 353, 361, 367, 593
- 98, 735
- Walton, James H.** See **GETCHELL** and **WALTON**, 91, 419
- Wang, Chi Che**, and **Hawks, Jean E.** A preliminary report on the basal metabolism and the caloric and protein intake of American-born Chinese children, 87, v
- , **Hogden, Corinne**, **Kaucher, Mildred**, and **Wing, Mary.** A metabolic study of a case of Lorain type of infantilism, 100, xcix
- Wardell, Emma L.** See **MYERS** and **WARDELL**, 77, 697
- Warkany, Josef.** See **GUEST** and **WARKANY**, 100, 445
- Washburn, Martha L.** See **SHEAR**, **WASHBURN**, and **KRAMER**, 83, 697
- and **Shear, M. J.** Composition of bone. XIII. Direct gravimetric determination of Ca, Mg, and PO_4 , 99, 21
- Waterman, Robert E.** See **WILLIAMS** and **WATERMAN**, 78, 311
- See **WILLIAMS**, **WATERMAN**, and **GURIN**, 83, 321
- 87, 559
- Watkins, O.** Lactose metabolism in women, 80, 33
- Watson, E. M.** See **LAUGHTON**, **MACALLUM**, **RABINOWITCH**, and **WATSON**, 92, xx

- Waugh, W. A., and King, C. G. Isolation and identification of vitamin C, 97, 325
- Way, Charles T. See MUNTWYLER and WAY, 87, lv
- See MUNTWYLER, MYERS, and WAY, 92, 721
- See MUNTWYLER, WAY, and POMERENE, 92, 733
- Weare, John H. See COHN, McMECKIN, EDSALL, and WEARE, 92, xlv
- Weaver, Willis K., and Reed, C. I. Studies on the inorganic constituents of the blood of normal and parathyroidectomized dogs, 85, 281
- Weber, C. J. Studies on guanidine compounds. The excretion of guanidine bases after subcutaneous or oral administration, 78, xv
- The determination of the guanidine bases in urine, 78, 465
- A modification of Sakaguchi's reaction for the quantitative determination of arginine, 86, 217
- The determination of arginine in dog blood, 88, 353
- , Nanninga, J. B., and Major, Ralph H. The depressor activity of brain extracts, 97, xcvi
- Weber, J. J. See CHAIKOFF and WEBER, 76, 813
- Weber, Richard J. See LANGLEY and WEBER, 89, 567
- Webster, Bruce. See MARINE, BAUMANN, and WEBSTER, 89, 213
- Webster, D. R., and Komarov, S. A. Mucoprotein as a normal constituent of the gastric juice, 96, 133
- Weed, Katharine L. See SHOHL, BENNETT, and WEED, 78, 181
- 79, 257
- Weil, Arthur. The influence of formalin fixation on the lipoids of the central nervous system, 83, 601
- Weinstock, Mildred. See HESS, WEINSTOCK, RIVKIN, and GROSS, 87, 37
- See HESS, WEINSTOCK, BENJAMIN, and GROSS, 90, 737
- See HESS, BERLINER, and WEINSTOCK, 94, 9
- See HESS, GROSS, WEINSTOCK, and BERLINER, 98, 625
- Weller, A. See HIMWICH, GOLDFARB, and WELLER, 93, 337
- Wells, Arthur H. See SIMPSON and WELLS, 76, 171
- Wells, Phillip H. See IRVING and WELLS, 77, 97
- Wendel, William B., and Shaffer, Philip A. Induced oxidations in blood. Oxidation of lactic to pyruvic acid by methylene blue, 87, xx
- Induced oxidations in blood. Acceleration of respiration of red blood cells by cyanide, 92, xlvii
- The determination of pyruvic acid and the preparation of lithium pyruvate, 94, 717

Wendel, William B.—*continued.*

- The rôle of methemoglobin in methylene blue catalysis of lactic acid oxidation, 97, lxxv

- The mechanism of the action of methylene blue and sodium nitrite in cyanide poisoning, 100, c

Wesson, Laurence G. Metabolic rates and respiratory quotients of rats following the ingestion of dextrin, 87, liii

- and Burr, George O. The metabolic rate and respiratory quotients of rats on a fat-deficient diet, 91, 525

- The effect of protracted exercise, intestinal fermentation, and modification of diet on the attainment of abnormal respiratory quotients by rats on a fat-deficient intake, 100, 365

- and Murrell, F. C. A dietary factor concerned with carbohydrate metabolism, 100, cii

West, Edward S., and Scharles, Frederick H. The metabolism of glucose cycloacetoacetic acid in the dog, 78, liv

- , —, and Peterson, Vernon L. The determination of true sugar in blood, 82, 137

- Reducing substances in urine, 92, xxiv

- An improved lactic acid apparatus, 92, 483

- See SCHARLES and WEST, 93, 359

- , Norris, R. C., and Steiner, Alexander. Nature of the fermentable sugar in normal urine, 97, lxxxii

- See STEINER, URBAN, and WEST, 98, 289

- , Curtis, George H., and Hoagland, Charles L. Determination of the hydroxyl numbers (acetyl values) of oils, fats, and waxes, 100, cii

West, Randolph. See DAKIN and WEST, 78, 91, 745, 757, 83, 773

- and Howe, Marion. A crystalline derivative of an acid present in liver, active in pernicious anemia, 88, 427

- See DAKIN and WEST, 92, 117

- and Howe, Marion. A crystalline derivative of an acid present in liver. A correction, 94, 611

Westerman, Beulah D., and Rose, William C. The availability of disulfide acids as supplementing agents in diets deficient in cystine. II. α -Dihydroxy- β -dithiodipropionic acid, 79, 413

- and —. The oxidation of disulfide acids in the animal organism, 79, 423

Whelan, Mary. A colorimetric method for the quantitative determination of nitrates and nitrites in biologic fluids, 86, 189

Whipple, G. H. See ROBSCHT-ROBBINS, ELDEN, SPERRY, and WHIPPLE, 79, 563

- See ELLEN, SPERRY, ROBSCHT-ROBBINS, and WHIPPLE, 79, 577
- See SMITH, GROTH, and WHIPPLE, 80, 659
- See SMITH and WHIPPLE, 80, 671
- and Smith, H. P. Bile salt metabolism. III. Tryptophane, tyrosine, and related substances as influencing bile salt output, 80, 685
- and —. IV. How much bile salt circulates in the body? 80, 697
- See SPERRY, ELLEN, ROBSCHT-ROBBINS, and WHIPPLE, 81, 251
- See SMITH and WHIPPLE, 89, 689
- and Smith, H. P. Bile salt metabolism. VI. Proline, tryptophane, and glycine in diet, 89, 705
- See SMITH and WHIPPLE, 89, 719
- and Smith, H. P. Bile salt metabolism. VIII. Liver injury and liver stimulation, 89, 727
- See SMITH and WHIPPLE, 89, 739
- Whitaker, Mildred. See MCCLENDON, ANDERSON, STEGERDA, CONKLIN, and WHITAKER, 77, 413
- Whitaker, W. M. See OLMSTED, WHITAKER, and DUDEN, 85, 109
- See OLMSTED, DUDEN, WHITAKER, and PARKER, 85, 115
- White, Abraham. See CALVERY and WHITE, 94, 635
- See VICKERY and WHITE, 97, xviii
- and Lewis, Howard B. The metabolism of sulfur. XIX. The distribution of urinary sulfur in the dog after the oral administration of monobromobenzene as influenced by the character of the dietary protein and by the feeding of *l*-cystine and *dl*-methionine, 98, 607
- See VICKERY and WHITE, 99, 701
- and Jackson, Richard W. An investigation of a new method for producing a diet deficient in cystine and methionine, 100, ciii
- White, F. D. Reducing substances in the blood of the dogfish, *Squalus sucklii*, and certain other fishes, 77, 655
- White, H. L. A microconductance cell, 99, 445
- White, Julius. The synthesis of glycyltaurine and glycylcysteic acid, 100, civ
- Whitsitt, M. L. See SHERMAN and WHITSITT, 90, 153
- Whittier, E. O. Buffer intensities of milk and milk constituents. I. The buffer action of casein in milk, 83, 79
- Wigman, Helen B. See COX, DODDS, WIGMAN, and MURPHY, 92, xi
- Wignall, Ernest W. See JACOBS, ELDERFIELD, GRAVE, and WIGNALL, 91, 617

- Wilbur, Leonard Fisk. See LUCK, MORRISON, and WILBUR, 77, 151
- Wilcox, D. E. See RUSSELL, TAYLOR, and WILCOX, 99, 109
- Wilder, T. S. The tetany of fasting in experimental rickets, 81, 65
- Wilder, Willard. See HUNT and WILDER, 90, 279
- See BETHKE, KICK, and WILDER, 98, 389
- Wildman, J. D. See KEENAN and WILDMAN, 88, 425
- Wile, Udo J. See ECKSTEIN and WILE, 87, 311
- Wiley, Frank H., and Lewis, Howard B. The action of nitrous acid on casein. II, 86, 511
- See PUCKETT and WILEY, 96, 367
- , Wiley, Leona L., and Waller, Dorothy S. The effect of the ingestion of sodium, potassium, and ammonium chlorides, 97, lvi
- , Owens, J. S., and Duffendack, O. S. The quantitative spectrographic determination of inorganic bases in biological material, 100, cv
- Wiley, Leona L. See WILEY, WILEY, and WALLER, 97, lvi
- Wilhelmj, Charles M., and Bollman, Jesse L. The specific dynamic action and nitrogen elimination following intravenous administration of various amino acids, 77, 127
- See BOOTHBY, WILHELMJ, and WILSON, 83, 657
- See BOLLMAN, MANN, and WILHELMJ, 93, 83
- Wilkerson, Vernon A., and Gortner, Ross Aiken. The chemistry of embryonic growth. III. A biochemical study of the embryonic growth of the pig, with special reference to nitrogenous compounds, 97, lxi
- Wilkins, W. E. See CULLEN, HARRISON, CALHOUN, WILKINS, and PILCHER, 92, iv
- Williams, Edward F., Jr. See NASH and WILLIAMS, 94, 783
- and Nash, Thomas P., Jr. Is blood protein amide nitrogen a source of urinary ammonia? III. On the question of synthesis of protein amides from ammonia, 100, 515
- and —. IV. An improved aeration set for use in transfer and measurement of small quantities of ammonia, 100, 737
- Williams, George Z., and Lewis, Robert C. Evidence for the presence of a third factor in the vitamin B complex of yeast, 89, 275
- Williams, John Warren, and Drissen, Edward M. Oxidation-reduction potentials of certain sulfhydryl compounds, 87, 441
- Williams, Priscilla. See SUNDERMAN and WILLIAMS, 92, 99
- See STADIE, SUNDERMAN, O'BRIEN, and WILLIAMS, 97, xevii

- Williams, R. D.** See **URBAN** and **WILLIAMS**, 100, 237
- Williams, Robert R., and Waterman, Robert E.** The tripartite nature of vitamin B, 78, 311
- , —, and **Gurin, Samuel.** The effect of pH control in the autoclaving of yeast with respect to the vitamin B factors, 83, 321
- , —, and —. The Jansen and Donath procedure for the isolation of antineuritic vitamin, 87, 559
- Williams, Roger J., McAlister, Edward D., and Roehm, Richard R.** A rapid and accurate method for determining the quantity of yeast or other microorganisms in a suspension, 83, 315
- and **Roehm, Richard R.** The effect of antineuritic vitamin preparations on the growth of yeasts, 87, 581
- Wilson, D. Wright, and Ball, Eric G.** A study of the estimation of chloride in serum, 78, 1
- and —. A study of the estimation of chloride in blood and serum, 79, 221
- See **JOHNSTON** and **WILSON**, 85, 727
- See **LAUG** and **WILSON**, 87, xxvii
- See **WOLFF** and **WILSON**, 92, lx
95, 495
- See **DE BEER** and **WILSON**, 95, 671
- See **REINHOLD** and **WILSON**, 96, 637
- and **Wolff, William A.** The determination of anserine in muscle, 100, cvi
- Wilson, H. Ellis C.** See **BOOTHBY, WILHELMJ, and WILSON**, 83, 657
- Wilson, Robert H., and Lewis, Howard B.** Comparative studies of the metabolism of amino acids. II. The rate of absorption of amino acids from the gastrointestinal tract of the white rat, 84, 511
- and —. III. The formation of glycogen after oral administration of amino acids to white rats, 85, 559
- The rate of absorption of cystine from the gastrointestinal tract of the white rat, 87, 175
- The effect of phlorhizin on the rate of absorption from the gastrointestinal tract of the white rat, 97, 497
- Wilson, Velma.** See **HENDRIX and WILSON**, 79, 389
- Windus, Wallace.** See **ROSE, ELLIS, WINDUS, and CATHERWOOD**, 92, lxvi
- , **Catherwood, Florence L., and Rose, William C.** Feeding experiments with mixtures of highly purified amino acids. III. The supplementing effect of casein fractions, 94, 173
- Wing, Mary.** See **WANG, HOGDEN, KAUCHER, and WING**, 100, xcix
- Winter, James E.** See **CARSWELL and WINTER**, 93, 411

- Wintersteiner, Oskar. See JENSEN and WINTERSTEINER,
97, 93
98, 281
- and Abramson, Harold A. The isoelectric point of insulin. Electrical properties of adsorbed and crystalline insulin,
99, 741
- Wirick, Alice M. See BILLS and WIRICK,
86, 117
- See BILLS, HONEYWELL, WIRICK, and NUSSMEIER,
90, 619
- Wise, Edwin C. See SPEER, WISE, and HART,
82, 105
- See HEYL, WISE, and SPEER,
82, 111
- Witzemann, Edgar J. The oxidation of α -hydroxy fatty acids *in vitro* and the shifting point of rupture in these acids,
92, xxxii
- The oxidation of metabolites. I. The mechanism of the oxidation of α -hydroxy fatty acids with potassium permanganate,
95, 219
- II. The shift in the point of rupture in a given α -hydroxy fatty acid in the presence or absence of free alkali,
95, 247
- Wolff, William A. See BALLS and WOLFF,
80, 379, 403
- and Wilson, D. Wright. The extractives of dog muscle,
92, 1x
- and —. Anserine in mammalian skeletal muscle,
95, 495
- See WILSON and WOLFF,
100, cvi
- Wolfrom, M. L. See LEVENE and WOLFROM,
77, 671
78, 525
79, 471
- Wong, San Yin. Colorimetric determination of iron and hemoglobin in blood. II,
77, 409
- Wood, Clarence. See LEPKOVSKY, WOOD, and EVANS,
87, 239
- Wood, J. Edwin. See CHANUTIN, FERRIS, and WOOD,
92, lxxxii
- Woodward, Gladys E., and Fry, Edith G. The determination of blood glutathione,
97, 465
- See SCHROEDER, WOODWARD, and PLATT,
100, 525
- Wright, G. Payling, and Arthur, Barbara. On the oxidation by potassium ferricyanide of certain constituents of the serum in anemia,
90, 757
- and Van Alstyne, Margaret. On the oxidation of linseed oil emulsions in the presence of hematin and potassium cyanide,
93, 71
- , Conant, James B., and Kam-erling, S. E. The catalytic effect of ferricyanide in the oxidation of unsaturated compounds by oxygen,
94, 411
- Wright, Sydney L., Jr., Herr, Elizabeth F., and Paul, John R. The relationship of lactic acid to the optical activity of normal and diabetic blood before and after glycolysis,
80, 571

- and Allison, Crispin L. The determination of total base, 100, 1
- Wyman, Jeffries, Jr. Studies on the dielectric constant of protein solutions. I. Zein, 90, 443
- Wyman, Pauline D. See ANDREWS and WYMAN, 87, 427
- Wynne, A. M. See PETT and WYNNE, 97, 177
- Yamaguchi, Fumiko. See REED, YAMAGUCHI, ANDERSON, and MENDEL, 87, 147
- Yamaguchi, S. See MICHAELIS and YAMAGUCHI, 83, 367
- Yang, Peter S. See LEVENE and YANG, 99, 405
- See RISING and YANG, 99, 755
- Yasuda, Morio. Contributions to the microdetermination of cholesterol, 92, 303
- The determination of the iodine number of lipids, 94, 401
- Young, A. G., and Taylor, F. H. L. An electrolytic method for the determination of small amounts of mercury in body fluids and tissues, 84, 377
- Young, E. Gordon, and Musgrave, Forrest F. Colloidal uric acid, 87, xvi
- and —. The influence of electrolytes on the gelation of methylamine urate, 92, li
- and Grant, Gordon A. The composition of vixen milk, 93, 805
- See DREYER and YOUNG, 97, lxx
- Young, William G. See SPOEHR and STRAIN, 89, 503
- Yudkin, Arthur M. See KRAUSE and YUDKIN, 88, 471
- See SMITH, YUDKIN, KRISS, and ZIMMERMAN, 92, xcii
- Zeleny, Lawrence, and Gortner, Ross Aiken. The action of formaldehyde on amino acids with special reference to the formation of amines, 90, 427
- Zeller, J. H. See ELLIS and ZELLER, 89, 185
- Zerfas, L. G. See HELMER, FOUTS, and ZERFAS, 100, liii
- Ziegler, Mildred R. See SCHLUTZ, SWANSON, and ZIEGLER, 78, vii
- Zimmerman, Harry M. See SMITH, YUDKIN, KRISS, and ZIMMERMAN, 92, xcii

SUBJECT INDEX

Entries for physical constants or properties or for such physiological phenomena as *Absorption, Assimilation, Digestion, Equilibrium, Excretion, Fermentation, Metabolism, Respiration*, etc., have been made only when the subject is treated in a general sense; not when these subjects occur in connection with a definite substance.

When a definite constituent occurs in connection with *Biological fluids, Biological material, Blood, Blood cell, Blood plasma, Blood serum, Diet, Milk, Tissue, Urine*, the constituent only is indexed. However, *Blood sugar* is indexed as such.

Abalone: Glycogen (PETREE and ALSBERG) 1929, 82, 385

Absorption: (*See note above*)
Gastrointestinal, phlorhizin effect (WILSON)

1932, 97, 497

Intestinal (CORI)

1930, 87, 13

(CORI, VILLIAUME, and CORI)

1930, 87, 19

Acetaldehyde: α oxidation (CONANT and TONGBERG)

1930, 88, 701

Acetate ion: Calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF)

1929, 83, 721

Acetic acid(s): Disubstituted, optical rotation, substituting groups in, influence (LEVENE and MIKESKA)

1929, 84, 571

—, with methyl group, rotations, correlation (LEVENE and MARKER) 1932, 98, 1

Acetic acid(s)—*continued*:

Disubstituted, with phenyl group, configurational relationship (LEVENE, MARKER, and ROTHEN) 1933, 100, 589

—, — — —, optical rotation, substituting groups, influence (LEVENE, MIKESKA, and PASSOTH) 1930, 88, 27

Iodo-, yeast poisoned by, amines, effect (SCHROEDER, WOODWARD, and PLATT)

1933, 100, 525

Metabolism (DEUEL and MILHORAT) 1928, 78, 299

Phenyl-, conjugation (QUICK) 1928, 77, 581

Acetoacetic acid: Glucose cyclo-, metabolism (WEST and SCHARLES) 1928, 78, liv

Glucuronic acid production, influence (QUICK)

1932, 98, 537

Acetoglucals: Preparation (LEVENE and RAYMOND)

1931, 90, 247

- Acetone:** Acetylamino-, substituted, aromatic derivatives (DAKIN and WEST) 1928, 78, 757
- Blood, diabetes, phlorhizin and pancreatic, various organs, effect (HIMWICH, GOLDFARB, and WELLER) 1931, 93, 337
- Butyl alcohol fermentation, substrate and products, oxidation-reduction relations (JOHNSON, PETERSON, and FRED) 1931, 91, 569
- Dihydroxy-, autocondensation (LEVENE and WALT) 1928, 78, 23
- , blood, determination (McCLELLAN) 1928, 76, 481
- , glucose and, metabolism effect, comparison (McCLELLAN, BIASOTTI, and HANNON) 1928, 78, 719
- , hypoglycemia, insulin, effect (LEVENE and BLANCO) 1928, 79, 657
- , urine, determination (McCLELLAN) 1928, 76, 481
- , utilization, insulin influence (CORI and CORI) 1928, 76, 755
- Methylcyclo-dihydroxy-, condensation products (LEVENE and WALT) 1929, 84, 39
- Respiration and gas apparatus, control substance (CARPENTER, FOX, and SEREQUE) 1929, 82, 335
- Acetone bodies:** Blood, determination (VAN SLYKE) 1929, 83, 415
- Excretion rate (McCLELLAN and TOSCANI) 1928, 80, 653
- Acetone bodies—continued:**
- Urine, determination (VAN SLYKE) 1929, 83, 415
- Acetophenone:** Metabolism (QUICK) 1928, 80, 515
- Aceturic acid:** Phenyl-, synthesis, site, dog (QUICK) 1932, 96, 73
- Acetylaminoacetone:** Substituted, aromatic derivatives (DAKIN and WEST) 1928, 78, 757
- Acetylaminopropionic acid:** α , α' -Bis-, esters, preparation (NICOLET) 1933, 100, 287
- Acetyldipeptides:** Hydrolysis (LEVENE and STEIGER) 1931, 93, 581
- Acetyl-glycine:** Aromatic aldehydes, condensation (DAKIN) 1929, 82, 439
- Acetyl monoses:** (LEVENE and WOLFROM) 1928, 78, 525
- (LEVENE and TIPPSON) 1928, 79, 471
- 1931, 90, 89
- 1931, 92, 109
- Acetyl-*d*-tryptophane:** Animal body, availability (DU VIGNEAUD, SEALOCK, and VAN ETEN) 1932, 98, 565
- Acetyl-*l*-tryptophane:** Racemization (DU VIGNEAUD and SEALOCK) 1932, 96, 511
- Achlorhydria:** Chloride excretion (HUBBARD) 1930, 88, 361
- Acid(s):** Bile. *See* Bile acids.
- Blood serum composition, injection influence (BALL) 1930, 86, 433
- —, pregnancy (OARD and PETERS) 1929, 81, 9

Acid(s)—continued:

- Combining capacity, hemocyanin, *Limulus polyphemus* (REDFIELD and MASON) 1928, 77, 451
- properties, blood (STADIE and HAWES) 1928, 77, 241, 265 (STADIE) 1928, 77, 303
- Fatty. *See* Fatty acids.
- Hemolysis action (BODANSKY) 1928, 78, xvi
- Inorganic. *See* Inorganic acids.
- Mineral. *See* Mineral acid.
- Neutralization, extrarenal, ammonia (BLISS) 1930, 87, xxx
- Organic. *See* Organic acids.
- Pancreatic juice composition, injection influence (BALL) 1930, 86, 433
- Plant tissue, determination (PUCHER, VICKERY, and WAKEMAN) 1932, 97, 605
- Reproduction effect (LAMB and EVVARD) 1931-32, 94, 415
- Acid-base:** Blood (EARLE and CULLEN) 1929, 83, 539 (ROBINSON, PRICE, and CULLEN) 1933, 100, lxxxii, lxxxiii
- , diurnal changes (CULLEN and EARLE) 1929, 83, 545
- Dietary, calcium absorption, influence (ROBINSON and DUNCAN) 1931, 92, 435
- , hydrogen ion concentration, intestine, effect (ROBINSON and DUNCAN) 1931, 92, 435
- , rickets, effect (SHOHL, BENNETT, and WEED) 1928, 78, 181

Acid-base—continued:

- Dietary, rickets, production (SHOHL, BROWN, CHAPMAN, ROSE, and SAURWEIN) 1932, 98, 215
- , tetany cause (SHOHL, BROWN, CHAPMAN, ROSE, and SAURWEIN) 1932, 98, 215
- Indicators, activity coefficients (SENDROY and HASTINGS) 1928, 78, lxxvii 1929, 82, 197
- Paths, humans (HASTINGS and SHOCK) 1932, 97, lx
- Acid-base equilibrium:** Animal nutrition (LAMB and EVVARD) 1928, 78, xxviii
- Ash, plant, determination (FREAR) 1930, 88, 675
- Blood, eclampsia (STANDER, EASTMAN, HARRISON, and CADDEN) 1929-30, 85, 233
- , hemorrhage effect (JOHNSTON and WILSON) 1929-30, 85, 727
- , pregnancy toxemias (MUNTWYLER, LIMBACH, BILL, and MYERS) 1931, 90, 607
- , rickets and tetany (SHOHL, BROWN, ROSE, SMITH, and COZAD) 1931, 92, 711
- , vitamin B deprivation, effect (BURACK and COWGILL) 1932, 96, 673
- Hyperthermia (DALY and KNUDSON) 1932, 97, lvii
- by short radio waves (BISCHOFF, LONG, and HILL) 1931, 90, 321
- Nutrition (LAMB and EVVARD) 1931-32, 94, 415
- Oxygen tension, reduced (BARON, HARROP, PERLZWEIG, and PIERCE) 1930, 87, xxv

Acid-base equilibrium—continued:

- Pregnancy (KYDD) 1931, 91, 63
 (MYERS, MUNTWYLER, and BILL) 1932, 98, 253
 —, abnormal (KYDD, OARD, and PETERS) 1932, 98, 241
 Rickets and tetany (SHOHL, BROWN, ROSE, SMITH, and COZAD) 1931, 92, x
 Roentgen rays influence (SPRUNT) 1931, 92, 605
 Sweat (FISHBERG and BIERMAN) 1932, 97, 433
Acid hematin: Solutions, standard, preparation from hemin (ELVEHJEM) 1931, 93, 203
Acidity: Gastric juice (HOLLANDER and COWGILL) 1931, 91, 151
 — —, composition and, relation (HOLLANDER) 1932, 97, xli
 — secretion, criteria (HOLLANDER) 1931, 91, 481
Acidosis: Blood electrolyte equilibrium (HARKINS and HASTINGS) 1931, 90, 565
Activity coefficient: Single ion, determination (STADIE and HAWES) 1928, 78, xxix
Adenine: Nucleotide, blood, microdetermination (BUELL and PERKINS) 1928, 76, 95
Adenosine: Chemical constitution (LEVENE and TIPSON) 1931-32, 94, 809
 Urine, human, isolation (CALVERY) 1930, 86, 263
Adenylic acid: Guanylic acid and, hydrolysis rate, comparison (LEVENE and DMOCHOWSKI) 1931, 93, 563

Adenylic acid—continued:

- Xanthylic acid and, hydrolysis rate, comparison (LEVENE and DMOCHOWSKI) 1931, 93, 563
Adrenalectomy: Adrenal cortex hormone, requirement (PFIFFNER, VARS, BOTT, and SWINGLE) 1933, 100, lxxviii
 Blood plasma phosphates, carbohydrate metabolism, relation (CORI and CORI) 1932, 97, lxxxv
 Glycine, specific dynamic action, effect (NORD and DEUEL) 1928, 80, 115
 Muscle, autolyzing, phosphorus and carbohydrate metabolism (BUELL and STRAUSS) 1932, 97, lxxv
 —, cardiac, autolyzing, phosphorus and carbohydrate metabolism, effect (BUELL, STRAUSS, and ANDRUS) 1932, 98, 645
 —, gastrocnemius, autolyzing, phosphorus and carbohydrate metabolism, effect (BUELL, STRAUSS, and ANDRUS) 1932, 98, 645
Adrenalin: Carbohydrate metabolism, fasting, effect (LONG and BISCHOFF) 1932, 98, 85
 Electrocardiogram and, shock effect (LANDIS) 1933, 100, lxi
 Muscle carbohydrate, total, effect (BISCHOFF and LONG) 1932, 95, 743
 — sugar, depletion (BISCHOFF and LONG) 1930, 87, 47

Adrenalin—continued:

Muscle sugar, free, effect (BISCHOFF and LONG)

1932, 95, 743

Respiration and, shock effect (LANDIS)

1933, 100, lxi

See also Epinephrine.

Adrenals: Cortex, hormone (PFIFFNER, VARS, BOTT, and SWINGLE)

1932, 97, xlv

—, adrenalectomy, requirement (PFIFFNER, VARS, BOTT, and SWINGLE)

1933, 100, lxxviii

—, — extract, preparation (GROLLMAN and FIBOR)

1933, 100, 429

—, —, metabolism effects (HARROP, SWINGLE, and PFIFFNER)

1931, 92, lvi

See also Suprarenal.

Adsorption: Interfacial, blood plasma clotting, factor (JOHLIN)

1929, 81, 99

—, colloidal solutions, concentration (JOHLIN)

1929, 84, 543

—, gelatin solutions (JOHLIN)

1930, 87, xix

Age: Blood plasma nitrogen, total, effect (SWANSON and SMITH)

1932, 97, 745

— serum cholesterol, effect (SHOFB)

1928, 80, 141

Diets, unusual, and, effect (MACKEY and MACKEY)

1930, 86, 765

Muscle, striated, phosphorus distribution, influence (COLE)

1931, 92, xv

(COLE and KOCH)

1931-32, 94, 263

Alanine: Cupric complexes (BORSOOK and THIMANN)

1932, 98, 671

Levo-, polypeptides composed of, alkali action (LEVENE and YANG)

1932-33, 99, 405

β -Alanine: Fate, phlorhizin effect (CORLEY)

1929, 81, 545

d -Alanine: Free energy (BORSOOK and HUFFMAN)

1932-33, 99, 663

Albumin: Blood serum, alkali bound by (VAN SLYKE, HASTINGS, HILLER, and SENDROY)

1928, 79, 769

—, determination (LOONEY)

1932, 97, xxvi

—, globulin, transformation (HOOKER and BOYD)

1933, 100, 187

—, molecular weight determination (BURK)

1931, 92, xl

—, osmotic pressure and molecular weight (BURK)

1932, 98, 353

Egg, bile salt metabolism effect (SMITH and WHIFFLE)

1930, 89, 689

—, coagulated and uncoagulated, titration curves, comparison (HENDRIX and WILSON)

1928, 79, 389

—, crystallized (CALVERY)

1931-32, 94, 613

—, rotatory power, acid and protein combination, relation (ALMQUIST and GREENBERG)

1931, 93, 167

Albumin—continued:

Egg, rotatory power, alkali and protein combination, relation (ALMQUIST and GREENBERG) 1931, 93, 167

Milk, globulin, crystalline, from (PALMER)

1933, 100, lxxv

Alcohol(s): Aliphatic, saturated, chemical constitution, and liver esterase, inhibiting effect, relation (GLICK and KING) 1931-32, 94, 497

Blood, determination (TURNER) 1931, 92, lxxxvi

—, —, interferometric (BOCK) 1930, 87, xxviii
1931, 93, 645

—, intoxication relation (TURNER) 1931, 92, lxxxvi

Fermentation, hexosephosphates and (RAYMOND and LEVENE) 1928, 79, 621

Intoxication determination, cerebrospinal fluid analysis (GETTLER and FREIREICH) 1931, 92, 199

See also Ethyl alcohol.

Aldehydes: Aromatic, condensation, glycine and acetyl-glycine (DAKIN)

1929, 82, 439

α -Hydroxy-, polymerization (LEVENE and WALT) 1931-32, 94, 353

Aldobionic acid: Crystalline, gum arabic (HEIDELBERGER and KENDALL)

1929, 84, 639

Alfalfa: Hay, vitamin A, curing effect (HARTMAN)

1931, 92, vii

Vitamin A, curing effect (RUSSELL) 1929-30, 85, 289

Alfalfa—continued:

Vitamin A, drying effect (HAUGE and AITKENHEAD)

1931, 93, 657

— D, curing effect (RUSSELL) 1929-30, 85, 289

See also Hay.

Aliphatic acids: Phenyl-substituted, benzoic and phenyl-acetic acids, conjugation (QUICK) 1928, 77, 581

Alkali: Deficit, glucose tolerance and (DEUEL and GULICK) 1930, 89, 93

Alkaline reserve: Blood, arterial and venous (HURXTHAL, BOCK, TALBOTT, and DILL) 1929, 81, 681

—, vitamin B deficiency influence (SURE and SMITH) 1929, 84, 727

Organic salts ingestion effect (CAPE) 1933, 100, xxv

Alkaline tide: Morning, variation (HUBBARD and STEELE) 1929, 84, 199

Alkalinity: Urine, morning (HUBBARD, MUNFORD, TYNER, and ALLISON) 1931, 92, xxix

Alkaloids: Ergot (JACOBS) 1932, 97, 739

Alkalosis: Hypertension, persistent (MUNTWYLER and WAY) 1930, 87, lv

Pregnancy (KYDD and PETERS) 1932, 98, 261

(MYERS, MUNTWYLER, and BILL) 1932, 98, 267

Work capacity and (DILL, EDWARDS, and TALBOTT) 1932, 97, lviii

Allantoin: Determination, colorimetric (LARSON)

1931-32, 94, 727

Excretion, diet and caging effect, rabbit (CHRISTMAN)

1930, 86, 477

Urine, determination (ALLEN and CERECEDO)

1931, 93, 293

Allergy: Ragweed pollen (STULL, COOKE, and CHOBOT)

1931, 92, 569

Allocymarin: (JACOBS)

1930, 88, 519

Allophanates: Sterols (TANGE and McCOLLUM)

1928, 76, 445

Allostrophanthidin: (JACOBS)

1930, 88, 519

Alloxan: Fate (CERECEDO)

1931, 93, 283

Alloxantin: Fate (CERECEDO)

1931, 93, 283

Allyl isothiocyanate: Sulfur metabolism, influence (SANDBERG and HOLLY)

1932, 97, 31

Almond: Carbohydrates, nature and biological availability

(MORGAN, STRAUCH, and BLUME) 1929-30, 85, 385

Aluminum: Animal matter (KAHLENBERG and CLOSS)

1929, 83, 261

1929-30, 85, 783

Biological matter, spectrogram (McCULLUM, RASK, and BECKER)

1929-30, 85, 779

Compounds, baking powder residues, solubility, stomach and duodenum (MYERS and KILLIAN)

1928, 78, 591

Aluminum—continued:

Compounds, physiology (McCULLUM, RASK, and BECKER)

1928, 77, 753

Growth effect (MYERS and MULL)

1928, 78, 605

Phosphorus metabolism, effect (COX, DODDS, WIGMAN, and MURPHY)

1931, 92, xi

Plant matter (KAHLENBERG and CLOSS)

1929, 83, 261

1929-30, 85, 783

Reproduction effect (MYERS and MULL)

1928, 78, 605

Tissue, administration effect (MYERS and MULL)

1928, 78, 605

(MYERS and MORRISON)

1928, 78, 615

—, animal (MYERS, MULL, and MORRISON)

1928, 78, xi

—, —, determination (MYERS, MULL, and MORRISON)

1928, 78, 595

(EVELETH and MYERS)

1933, 100, xlii

—, autopsy (MYERS and MULL)

1928, 78, 625

Amebocyte: *Limulus*, urease extraction (LOEB, LORBERBLATT, and FIELD)

1928, 78, 417

Amide: Amino acid, biuret reaction (RISING and YANG)

1932-33, 99, 755

Blood protein, synthesis from ammonia (WILLIAMS and NASH)

1933, 100, 515

Di-acid, biuret reaction (RISING, HICKS, and MOERKE)

1930, 89, 1

Amide nitrogen: Blood (BLISS)

1929, 81, 137

Amide nitrogen—continued:

Blood, determination (BLISS)
1929, 81, 129

— protein, relation (BLISS)
1929, 81, 405

— —, urine ammonia source
(NASH and WILLIAMS)
1931-32, 94, 783

(WILLIAMS and NASH)
1933, 100, 515, 737

Plant extracts, determination,
error (VICKERY and PUCHER)
1931, 90, 179

Tobacco, determination, per-
mutit (VICKERY and PUCH-
ER) 1929, 83, 1

Amine(s): Dimethyl-, metabo-
lism (LANGLEY and WEBER)
1930, 89, 567

Formation, amino acids, for-
maldehyde action (ZELENY
and GORTNER)
1931, 90, 427

Metabolism (LANGLEY)
1929, 84, 561
(LANGLEY and WEBER)
1930, 89, 567

Trimethyl-, metabolism (LANG-
LEY) 1929, 84, 561

—, wheat smut, isolation
(HANNA, VICKERY, and
PUCHER) 1932, 97, 351

Triose conversion to methyl-
glyoxal, effect (STRAIN and
SPOEHR) 1930, 89, 527

Yeast poisoned by iodoacetic
acid, effect (SCHROEDER,
WOODWARD, and PLATT)
1933, 100, 525

Amino acid(s): Absorption rate,
gastrointestinal tract (WIL-
SON and LEWIS)
1929, 84, 511

Amino acid(s)—continued:

Absorption spectrum, substit-
uent groups, influence
(ANSLOW and FOSTER)
1932, 97, 37

Acetic anhydride action (LE-
VENE and STEIGER)
1928, 79, 95

Acyl derivatives, racemization
with acetic anhydride, azlac-
tone ring formation (DU VIG-
NEAUD and MEYER)
1932-33, 99, 143

Aliphatic, solubility (COHN,
McMEEKIN, EDSALL, and
WEARE) 1931, 92, xlv

Amides, biuret reaction (RIS-
ING and YANG)
1932-33, 99, 755

Amine formation, formalde-
hyde action (ZELENY and
GORTNER) 1931, 90, 427

Anemia, milk-produced, effect
(DRABKIN and MILLER)
1931, 90, 531
1931, 92, lxi
1931, 93, 39

Aromatic aldehyde derivatives
(DAKIN) 1929, 84, 675

Balance (SULLIVAN, HESS, and
SEBRELL) 1931, 92, lxxvii

Basic, casein determination
(CALVERY) 1929, 83, 631

—, developing egg (CALVERY)
1929, 83, 649

—, edestin, determination
(CALVERY) 1929, 83, 631

—, hair (VICKERY and LEAV-
ENWORTH) 1929, 83, 523

—, hemoglobin (VICKERY and
LEAVENWORTH)
1928, 79, 377
—, livetin (JUKES and KAY)
1932, 98, 783

Amino acid(s)—continued:

- Basic, neurokeratin (BLOCK)
1931-32, 94, 647
- , proteins (BLOCK and VICKERY)
1931, 93, 113
- , —, determination (VICKERY and LEAVENWORTH)
1928, 76, 707
(VICKERY and BLOCK)
1931, 93, 105
- , silk fibroin (VICKERY and BLOCK)
1931, 93, 105
- , wool (VICKERY and BLOCK)
1930, 86, 107
- Beef, deficiency, growth effect
(MITCHELL and SMUTS)
1932, 95, 263
- Benzoylated, animal organism
(GRIFFITH)
1929, 82, 415
1929-30, 85, 751
- Blood, insulin effect (LUCK, MORRISON, and WILBUR)
1928, 77, 151
(DANIELS and LUCK)
1931, 91, 119
- , non-protein nitrogen constituents, administration effect (JOHNSTON and LEWIS)
1928, 78, 67
- 5-Carbon, growth relation (St. JULIAN and ROSE)
1932, 97, xxxi
- , nutrition, interchangeability (St. JULIAN and ROSE)
1932, 98, 457
- Catabolism (CORLEY)
1929, 81, 545
(CORLEY and MARVEL)
1929, 82, 77
- Compound (MIYAMOTO and SCHMIDT)
1930, 87, 327
- Corn, deficiency, growth effect
(MITCHELL and SMUTS)
1932, 95, 263

Amino acid(s)—continued:

- Creatine-creatinine metabolism, effect (BEARD and BARNES)
1931-32, 94, 49
- Crystals, electric charge, aqueous electrolytes (ABRAMSON)
1933, 100, iii
- Decomposition points (DUNN and BROPHY)
1932-33, 99, 221
- Dibasic, hemocyanin, *Limulus polyphemus* (REDFIELD and MASON)
1928, 77, 451
- Dicarboxylic, nutrition, relation (St. JULIAN and ROSE)
1932, 98, 439
- Diet inadequacy (ROSE)
1931-32, 94, 155
- Dietary, casein fractions, supplement (WINDUS, CATHERWOOD, and ROSE)
1931-32, 94, 173
- , protein supplement (ELLIS and ROSE)
1931-32, 94, 167
- Disappearance and urea formation, relative rates (KIECH and LUCK)
1931-32, 94, 433
- Dissociation constants (KIRK and SCHMIDT)
1929, 81, 237
(HARRIS)
1929, 84, 179
- —, apparent, effect of position of substitution (SCHMIDT, APPLEMAN, and KIRK)
1929, 81, 723
- Egg, yolk, white, embryo, and shell, during egg development (CALVERY)
1932, 95, 297
- Energy, free, apparent, changes, ionization effect (MIYAMOTO and SCHMIDT)
1931, 90, 165

Amino acid(s)—continued:

- Entropy changes, ionization effect (MIYAMOTO and SCHMIDT) 1931, 90, 165
- Feeding, purified (ROSE, ELLIS, WINDUS, and CATHERWOOD) 1931, 92, lxvi
- (ROSE) 1931-32, 94, 155
- (ELLIS and ROSE) 1931-32, 94, 167
- (WINDUS, CATHERWOOD, and ROSE) 1931-32, 94, 173
- Formylation (STEIGER) 1930, 86, 695
- General reaction (DAKIN and WEST) 1928, 78, 91, 745
- Glycogen formation, ingestion effect (WILSON and LEWIS) 1929-30, 85, 559
- Heat of ionization (SCHMIDT, KIRK, and APPLEMAN) 1930, 88, 285
- Hemoglobin regeneration, effect (KEIL and NELSON) 1932, 97, 115
- Hydrochloric acid action (LEVENE and STEIGER) 1930, 86, 703
- Iron, combination (SMYTHE and SCHMIDT) 1930, 88, 241
- Metabolism (LUCK) 1928, 77, 13
- (JOHNSTON and LEWIS) 1928, 78, 67
- (WILSON and LEWIS) 1929, 84, 511
- 1929-30, 85, 559
- (SHAMBAUGH, LEWIS, and TOURTELLOTT) 1931, 92, 499
- (KIECH and LUCK) 1931-32, 94, 433
- (CHANDLER and LEWIS) 1932, 96, 619

Amino acid(s)—continued:

- Metabolism, differential (GERBER, NIELSEN, and CORLEY) 1933, 100, xlix
- Molal volumes (COHN, Mc-MEEKIN, EDSALL, and BLANCHARD) 1933, 100, xxviii
- Mono-, preparation from picrates (COX and KING) 1929, 84, 533
- Muscle dystrophy, effect (BEARD and TRIPOLI) 1933, 100, xiv
- Nitrogen, blood, insulin effect (BISCHOFF and LONG) 1929, 84, 629
- , —, lactation (HARDING and DOWNS) 1929, 84, 335
- elimination, injection effect (WILHELMJ and BOLLMAN) 1928, 77, 127
- , tissues, determination (LUCK) 1928, 77, 1
- (KIECH and LUCK) 1928, 77, 723
- Nitrous acid and, reaction (SCHMIDT) 1929, 82, 587
- Oats, deficiency, growth effect (MITCHELL and SMUTS) 1932, 95, 263
- Optical properties (KEENAN) 1929, 83, 137
- rotation, ionization effect (LEVENE, BASS, ROTHEN, and STEIGER) 1929, 81, 687
- Oxidation by dialuric acid (HILL) 1932, 95, 197
- Protein metabolism, endogenous, stimulation (LUCK and AMSDEN) 1931, 92, lxv
- Pyridine action (LEVENE and STEIGER) 1928, 79, 95

Amino acid(s)—continued:

- Racemization, acetic anhydride (DU VIGNEAUD and MEYER) 1932, 98, 295
 — as azlactones (CSONKA and NICOLET) 1932–33, 99, 213
 -Related substances, absorption spectrum, substituent groups, influence (ANSLOW and FOSTER) 1932, 97, 37
 Solutions, transference and conductivity (MIYAMOTO and SCHMIDT) 1932–33, 99, 335
 Soy bean, deficiency, growth effect (MITCHELL and SMUTS) 1932, 95, 263
 Specific dynamic action, relation (WILHELMJ and BOLLMAN) 1928, 77, 127
 — — — — to protein (RAPPORT and BEARD) 1928, 80, 413
 Sulfur-containing, Mueller (BARGER and COYNE) 1928, 78, iii
 Tertiary, acetic anhydride action (LEVENE and STEIGER) 1931, 93, 581
 Titration constants, formol titration (LEVY) 1932, 97, xcii
 Toxicity (SULLIVAN, HESS, and SEBRELL) 1931, 92, lxxvii
 Trivalent, peptides (GREENSTEIN) 1931, 93, 479
 1932, 95, 465
 Tuberculins (SEIBERT and MUNDAY) 1931, 92, lxxvii
 Wheat, deficiency, growth effect (MITCHELL and SMUTS) 1932, 95, 263
 α -Aminocaproic acid: Fate, phlorhizin effect (CORLEY) 1929, 81, 545
- 3-Amino-4-hydroxyphenylarsonic acid:** Derivatives, chemotherapy (RAIZISS, SEVERAC, and CLEMENCE) 1932, 97, xeviii
Amino nitrogen: Conductivity effect (BAERNSTEIN) 1928, 78, xlii
 Primary, blood, determination, manometric (VAN SLYKE) 1929, 83, 425
 Van Slyke apparatus, modified (KOCH) 1929, 84, 601
***p*-Aminophenylguanidine hydroiodide:** (BRAUN) 1930, 89, 97
 Hypoglycemic action (PARKS and BRAUN) 1931, 91, 629
 β -Amino-*n*-valeric acid: (DAKIN) 1932–33, 99, 531
Ammonia: Acid neutralization, extrarenal (BLISS) 1930, 87, xxx
 Biological fluids, determination (FOLIN) 1932, 97, 141
 Blood, determination (FOLIN) 1932, 97, 141
 — protein amides, relation (WILLIAMS and NASH) 1933, 100, 515
 Determination (WILLIAMS and NASH) 1933, 100, 737
 Excretion, gills, fish (SMITH) 1929, 81, 727
 Exercise, lactic acid neutralization, rôle (BLISS) 1929, 81, 137
 Formation (BLISS) 1928, 78, viii
 Muscle, frog, microdetermination (EMBDEN) 1931–32, 94, 315

Ammonia—continued:

Tobacco, determination, permutit (VICKERY and PUCHER)
1929, 83, 1

Urine, blood protein amide nitrogen source (NASH and WILLIAMS)

1931-32, 94, 783

(WILLIAMS and NASH)

1933, 100, 515, 737

—, origin (BENEDICT and NASH)

1929, 82, 673

Ammonium chloride: Ingestion effect (WILEY, WILEY, and WALLER)

1932, 97, lvi

Tetany prevention, parathyroidectomy (GREENWALD)

1929, 82, 717

Ammonium creatinine picrate:

Creatinine preparation (GREENWALD)

1929, 81, 73

Amylase: Determination, Wohlgemuth and viscometric methods, comparison (CHESLEY)

1931, 92, 171

Malt, extraction from alumina gel, ion influence (CALDWELL and DOEBBELING)

1932, 98, 553

Pancreas, purification (SHERMAN, CALDWELL, and ADAMS)

1930, 88, 295

Amyrin: α - and β -, dehydrogenation, partial (JACOBS and FLECK)

1930, 88, 137

Amytal: Blood plasma phospholipid, epinephrine and insulin, effect (MILLER)

1933, 100, lxx

Androcin: Distribution, male (McCULLAGE)

1932, 97, xlvii

Anemia: Blood serum, potassium ferricyanide oxidation effect (WRIGHT and ARTHUR)

1931, 90, 757

Development (MITCHELL)

1932, 97, xv

Glass cage for studies (SKINNER, STEENBOCK, and PETERSON)

1932, 97, 227

Glutamic acid effect (RIDER)

1933, 100, 243

Hemoglobin construction, iron salts, influence (DAFT)

1933, 100, xxxiv

Hemorrhagic, lipemia (JOHANSEN)

1930, 88, 669

Iron-containing ash extracts, effect (WADDELL, ELVEHJEM, STEENBOCK, and HART)

1928, 77, 777

Iron effect (WADDELL, STEENBOCK, and HART)

1929, 83, 243

— salts, effect (WADDELL, ELVEHJEM, STEENBOCK, and HART)

1928, 77, 777

Milk-produced, amino acids effect (DRABKIN and MILLER)

1931, 90, 531

1931, 92, lxi

1931, 93, 39

—, iron and copper relation (WADDELL, STEENBOCK, ELVEHJEM, and HART)

1929, 83, 251

Nitrogen conservation, iron salts, influence (DAFT)

1933, 100, xxxiv

Nutritional (MYERS, BEARD, and BARNES)

1931-32, 94, 117

(STUCKY) 1932, 97, xiii

Anemia—continued:

- Nutritional, blood regeneration, inorganic elements, effect (BEARD) 1931-32, 94, 135
- , — —, iron effect (BEARD and MYERS) 1931-32, 94, 71
- , — —, — plus inorganic elements, effect (MYERS and BEARD) 1931-32, 94, 89
- , body weight and hemoglobin increase, iron therapy, relationship (BEARD) 1931, 92, lxxxix
- , copper as iron supplement (WADDELL, STEENBOCK, and HART) 1929, 84, 115 (UNDERHILL, ORTEN, and LEWIS) 1931, 91, 13
- , — supplement variations (MITCHELL and MILLER) 1931, 92, 421
- , glutamic acid as iron supplement, effect (ELVEHJEM, STEENBOCK, and HART) 1931, 93, 197
- , growth effect, inorganic elements (BEARD) 1931-32, 94, 135
- , inorganic elements as preventive (BEARD, RAFFERTY, and MYERS) 1931-32, 94, 111
- , — —, effect (BEARD and MYERS) 1930, 87, xxxix
- , iron plus supplements, action (BEARD, BAKER, and MYERS) 1931-32, 94, 123
- , — supplement variations (MITCHELL and MILLER) 1931, 92, 421
- , manganese effect (KRAUSS) 1931, 90, 267

Anemia—continued:

- Nutritional, manganese supplement variations (MITCHELL and MILLER) 1931, 92, 421
- , metal cage for studies (GERAGHTY, UNDERHILL, ORTEN, and LEWIS) 1932-33, 99, 451
- , metals as iron supplements (UNDERHILL, ORTEN, and LEWIS) 1931, 91, 13
- , —, prevention effect (ORTEN, UNDERHILL, and LEWIS) 1932, 96, 1
- , production (ELVEHJEM and KEMMERER) 1931, 93, 189
- , reticulocyte and red blood cell response, iron action (BEARD and MYERS) 1931, 92, lxii
- , spinach, inorganic elements (MITCHELL and MILLER) 1929-30, 85, 355
- Pernicious, blood, recovery effect (DILL, BOCK, VAN CAULAERT, FÖLLING, HURXTHAL, and HENDERSON) 1928, 78, 191
- , liver (COHN, MINOT, ALLES, and SALTER) 1928, 77, 325
- , — acid, crystalline derivative, effect (WEST and HOWE) 1930, 88, 427
- , —, effective principle, preparation (WALDEN and CLOWES) 1932, 97, xi
- , — extracts (HEIDELBERGER, ROSENTHAL, COHN, and FRIEDMAN) 1928, 78, lxvi
- , material effective in (COHN, McMECKIN, and MINOT) 1930, 87, xlix

Anemia—continued:

- Pernicious, pancreas enzymes
(HELMER, FOUTS, and ZERFAS) 1933, 100, liii
- Reticulocyte response, iron and copper effect (ELVEHJEM and SCHULTZE) 1933, 100, xxxix
- Severe, blood regeneration
(ROBSCHUIT-ROBBINS, ELDEN, SPERRY, and WHIPPLE) 1928, 79, 563
(ELDEN, SPERRY, ROBSCHUIT-ROBBINS, and WHIPPLE) 1928, 79, 577
(SPERRY, ELDEN, ROBSCHUIT-ROBBINS, and WHIPPLE) 1929, 81, 251
- , hemoglobin output, copper salts influence (ELDEN, SPERRY, ROBSCHUIT-ROBBINS, and WHIPPLE) 1928, 79, 577
- , inorganic ash, apricot, liver, kidney, pineapple, effect (ROBSCHUIT-ROBBINS, ELDEN, SPERRY, and WHIPPLE) 1928, 79, 563
- , liver fractions, effect (SPERRY, ELDEN, ROBSCHUIT-ROBBINS, and WHIPPLE) 1929, 81, 251
- Study technique (WADDELL, STEENBOCK, ELVEHJEM, and HART) 1928, 77, 769
- Anesthesia:** Hydrocarbons, halogen-containing, decomposition, effect (LUCAS) 1928, 78, lxix
- Muscle, mammalian skeletal, recovery process in, effect (LONG) 1928, 77, 563

- Anesthetic:** Local, dissociation constants, determination, antimony-antimony trioxide electrode (FENWICK and GILMAN) 1929, 84, 605
- Anhydremia:** Vitamin B complex deficiency, nursing rats (SURE, KIK, and WALKER) 1929, 82, 287
— — deficiency, nursing rats (SURE, KIK, and WALKER) 1928, 78, xviii
(SURE and SMITH) 1929, 82, 307
- Anhydrodihydrodigitoxigenin:**
Oxidation (JACOBS and ELDERFIELD) 1932-33, 99, 693
- Anisotropic substances:** Urine (TURNER) 1933, 100, xcii
- Anserine:** Muscle, determination (WILSON and WOLFF) 1933, 100, cvi
—, skeletal, mammalian (WOLFF and WILSON) 1932, 95, 495
- Anthocyan:** Grape, Ives (SHRINER and ANDERSON) 1928, 80, 743
- Anticoagulant:** Blood plasma phosphate, inorganic, and protein, determination, effect (GAEBLER) 1932-33, 99, 99
- Antimony:** -Antimony trioxide electrode, dissociation constants, local anesthetics, determination (FENWICK and GILMAN) 1929, 84, 605
- Antimony trichloride:** Cod liver oil dilution curve (NORRIS and CHURCH) 1930, 87, 139

Antimony trichloride—continued:

Vitamin A, color reaction
(NORRIS and CHURCH)

1929-30, 85, 477

1930, 87, 139

1930, 89, 589

(DUBIN and HOOPER)

1932, 97, v

— — — —, reagent concentration effect (NORRIS and CHURCH) 1930, 89, 421

— — — — test (BRODE and MARGILL) 1931, 92, 87

— — — — test, interfering substances (CORBET, GEISINGER, and HOLMES)

1933, 100, 657

Antioxidants: (MATTILL)

1931, 90, 141

Lettuce lipids, unsaponifiable (OLCOTT and MATTILL)

1931, 93, 65

Natural, lettuce, isolation (OLCOVICH and MATTILL)

1931, 92, xxxi

Antioxygens: Liver lipids, unsaponifiable (FREYTAG and SMITH) 1933, 100, 319

Antiprotease: Insulin protection (HARNED and NASH)

1932, 97, 443

Antitoxin: Saponin action (SCOTT and GLAISTER)

1929, 84, 475

Antitrypsin: Insulin protection (HARNED and NASH)

1932, 97, li

Antiurease: (KIRK and SUMNER)

1931-32, 94, 21

1932, 97, lxxxvii

Apogossypol: (CLARK)

1928, 78, 159

Apparatus: Amino nitrogen, Van Slyke (KOCH)

1929, 84, 601

Ammonia determination, aeration set (WILLIAMS and NASH) 1933, 100, 737

Arsenic determination, biological material, Gutzeit, electrolytic, modified (OSTERBERG) 1928, 76, 19

Cage, glass, anemia studies (SKINNER, STEENBOCK, and PETERSON) 1932, 97, 227

—, metal, anemia, nutritional, studies (GERAGHTY, UNDERHILL, ORTEN, and LEWIS)

1932-33, 99, 451

Carbon dioxide determination, bone powder, Krogh-Rehberg (POWER and ADAMS)

1933, 100, lxxx

Conductivity assembly, biological fluids (SUNDERMAN)

1930, 88, 61

Dialyzer, continuous (AITKEN)

1931, 90, 161

Evaporation, liquids in test-tube (LOGAN)

1930, 86, 761

Extraction, low temperatures (GREENWALD and LEVY)

1930, 87, 281

—, Soxhlet, at low temperatures, reduced pressure (HAMBLETON)

1932-33, 99, 289

Extractor, continuous (BLOCK)

1933, 100, 537

Gas analysis, Haldane, Carpenter modification (CARPENTER, FOX, and SEREQUE)

1929, 83, 211

Apparatus—continued:

- Hydrogen ion concentration determination, electron tube potentiometer and glass electrode (STADIE, O'BRIEN, and LAUG) 1931, 91, 243
- — — —, glass electrode (MIRSKY and ANSON) 1929, 81, 581
- — — —, micro electrode and vessel (SALLE) 1929, 83, 765
- — — —, potentiometer (STADIE) 1929, 83, 477
- Lactic acid (WEST) 1931, 92, 483
- Microconductance cell (WHITE) 1932-33, 99, 445
- Micromanipulations (RICHARDS) 1930, 87, 463
- Oxygen consumption measurement (KOEHLER) 1932, 95, 67
- — — —, small animals (DAVIS and VAN DYKE) 1932, 95, 73
- Pipette, blood, Van Slyke gasometric apparatus (GUEST) 1931-32, 94, 507
- Potentiometer, vacuum tube, for glass electrode (DuBois) 1930, 88, 729
- Quinhydrone electrode (CULLEN) 1929, 83, 535
- Quinhydrone-collodion electrode (BUGHER) 1931, 92, 513
- Respiration and gas, acetone as control substance (CARPENTER, FOX, and SERREQUE) 1929, 82, 335
- , carbon dioxide and oxygen determinations, indirect calorimetry (McCLENDON,

Apparatus—continued:

- ANDERSON, STEGGERDA, CONKLIN, and WHITAKER) 1928, 77, 413
- Vitamin A determination, spectrograph (BILLS) 1933, 100, xv
- Appetite:** Diet effect (GRAHAM and GRIFFITH) 1931, 92, lxiii
- Vitamins B₁ and B₂, effect (GRIFFITH and GRAHAM) 1932, 97, vii
- Apple:** Coating, wax-like (MARKLEY, HENDRICKS, and SANDO) 1932, 98, 103
- Pigment formation, light effect (PEARCE and STREETER) 1931, 92, 743
- Apricot:** Ash, inorganic, severe anemia, effect (ROBSCHT-ROBBINS, ELDEN, SPERRY, and WHIPPLE) 1928, 79, 563
- Aqueous humor:** Calcium, parathyroid activity effect (MERRITT and BAUER) 1931, 90, 233
- Composition (KRAUSE and YUDKIN) 1930, 88, 471
- Reducing substances and phosphates, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii
- d*-Arabinose: Fate, *l*-arabinose, comparison (CORLEY) 1929, 82, 269
- Tubercle bacillus culture medium (RENFREW) 1930, 89, 619
- l*-Arabinose: Alkali, dilute, influence (AUSTIN, SMALLLEY, and SANKSTONE) 1931, 92, xviii

***l*-Arabinose—continued:**

Disposal (CORLEY) 1928, 76, 23

Fate, *d*-arabinose, comparison (CORLEY) 1929, 82, 269

Arachidonic acid: Lipids, thyroid, suprarenal, and spleen (BROWN) 1929, 83, 777

Preparation (BROWN) 1928, 80, 455

Arginase: Arginine determination (HUNTER and DAUPHINEE) 1929-30, 85, 627

— —, proteins (HUNTER and DAUPHINEE) 1929-30, 85, 627

Fish, distribution (HUNTER) 1929, 81, 505

Arginine: Biological material, determination (KIECH, LUCK, and SMITH) 1931, 90, 677

Blood, determination (WEBER) 1930, 88, 353

Catabolism rate (KIECH, LUCK, and SMITH) 1931, 90, 677

Complex, liberation, peptic proteolysis (TORBET and BRADLEY) 1931, 92, lxxvii

Creatine-creatinine excretion, feeding effect (HYDE and ROSE) 1929, 84, 535

Determination, arginase method (HUNTER and DAUPHINEE) 1929-30, 85, 627

—, Sakaguchi reaction (WEBER) 1930, 86, 217

Dissociation constants, apparent (SCHMIDT, KIRK, and APPLEMAN) 1930, 88, 285

Free, crystallization (VICKERY and LEAVENWORTH) 1928, 76, 701

Arginine—continued:

Histidine, separation (VICKERY and LEAVENWORTH) 1928, 78, 627

Insulin, isolation (JENSEN) 1928, 78, xli

-Low diet, growth effect (BUNNEY and ROSE) 1928, 76, 521

Metabolism (SCULL and ROSE) 1930, 89, 109

Muscle, vertebrates and invertebrates (ARNOLD and LUCK) 1932-33, 99, 677

Optical properties (KEENAN) 1929, 83, 137

Peptic digestion (TORBET and BRADLEY) 1932, 97, cx

Preparation, blood corpuscle paste, hydrolyzed (COX, KING, and BERG) 1929, 81, 755

Proteins, determination, arginase method (HUNTER and DAUPHINEE) 1929-30, 85, 627

Tissue, dietary arginine, growth, relation (SCULL and ROSE) 1930, 89, 109

d-Arginine: Optical activity (MILLER and ANDREWS) 1930, 87, 435

Specific rotation (HUNTER) 1929, 82, 731

d-Arginine monohydrochloride: Preparation (COX) 1928, 78, 475

Arsenate: Blood glycolysis, effect (MORGULIS and PINTO) 1932, 95, 621 (BRAUNSTEIN)

1932, 98, 379 (MORGULIS and PINTO) 1932, 98, 385

- Arsenic:** Biological material, determination, electrolytic Gutzeit apparatus, modified (OSTERBERG) 1928, 76, 19
- Compounds, toxicity, muscle dehydrogenase, frog and fish (COLLETT, RHEINBERGER, and LITTLE) 1933, 100, 271
- Derivatives, cysteine (JOHNSON and VOEGTLIN) 1930, 89, 27
- Arsonic acid:** 3-Amino-4-hydroxy-phenyl-, derivatives, chemotherapy (RAIZISS, SEVERAC, and CLEMENCE) 1932, 97, xcvi
- Arthritis:** Cystine (SULLIVAN and HESS) 1932, 97, xxv
- Ascorbic fluid:** Bicarbonate, blood plasma and, comparison (MUNTWYLER, WAY, and POMERENE) 1931, 92, 733
- Chloride, blood plasma and, comparison (MUNTWYLER, WAY, and POMERENE) 1931, 92, 733
- Ash:** Bone (MORGULIS) 1931, 93, 455
- shafts (HESS, BERLINER, and WEINSTOCK) 1931-32, 94, 9
- Femur, ergosterol, irradiated, effect (JONES and ROBSON) 1931, 91, 43
- Inorganic, apricot, liver, kidney, pineapple, severe anemia, effect (ROBSCHT-ROBBINS, ELLEN, SPERRY, and WHIPPLE) 1928, 79, 563
- Iron-containing extracts, anemia correction (WAD-
- Ash—continued:**
- DELL, ELVEHJEM, STEENBOCK, and HART) 1928, 77, 777
- Metaphysis (HESS, BERLINER, and WEINSTOCK) 1931-32, 94, 9
- Plants, acid-base balance, determination (FREAR) 1930, 88, 675
- Asparaginase:** (GEDDES and HUNTER) 1928, 77, 197
- Asparagine:** Yeast growth effect (RICHARDS) 1932, 96, 405
- Asparagus:** Vitamin A (CRIST and DYE) 1929, 81, 525
- —, light relation (CRIST and DYE) 1931, 91, 127
- Aspartic acid:** Aspartyl-, titration constants (GREENSTEIN) 1931, 93, 479
- Conductance and activity coefficients (HOSKINS, RANDALL, and SCHMIDT) 1930, 88, 215
- Monosodium salts, conductance and activity coefficients (HOSKINS, RANDALL, and SCHMIDT) 1930, 88, 215
- Nutrition, relation (BUNNEY and ROSE) 1928, 76, 521
- Proteins, determination (JONES and MOELLER) 1928, 79, 429
- Synthesis (DUNN and SMART) 1930, 89, 41
- L-Aspartic acid:** Free energy (BORSOOK and HUFFMAN) 1932-33, 99, 663
- Aspartylaspartic acid:** Titration constants (GREENSTEIN) 1931, 93, 479

Aspergillus fischeri: Ergosterol and mannitol identification and isolation (Pruess, Peterson, and Fred)

1932, 97, 483

Autolysis: Tissue, therapeutically active, preparation (Herron and McEllroy)

1933, 100, lii

Autoxidation: Oxidation-reduction systems, rate, and free energy relation (Barron)

1931, 92, xlv

1932, 97, 287

Avitaminosis: (Surre)

1932, 97, 133

Biochemistry (Surre, Kik, and Smith)

1930, 87, xlii

Glucose tolerance, antineuritic vitamin (Lepkovsky, Wood, and Evans)

1930, 87, 239

Gossypol effect (Gallup)

1931, 93, 381

Growth, vitamin B effect (Surre, Kik, and Church)

1932, 97, vi

Hematopoietic function, effect (Surre, Kik, and Walker)

1929, 83, 375, 387, 401

Lipid metabolism, vitamin B effect (Surre, Kik, and Church)

1932, 97, vi

Vitamin A (Elvehjem and Neu)

1932, 97, 71

See also Vitamins.

Avocado: Proteins (Jones and Gersdorff)

1929, 81, 533

Azotobacter: Oxidation by (Lineweaver)

1932-33, 99, 575

B

Bacillus: Colon. *See* Colon bacillus.

Bacillus—continued:

Leprosy. *See* Leprosy bacillus.

Timothy. *See* Timothy bacillus.

Tubercle. *See* Tubercle bacillus.

Typhoid. *See* Typhoid bacillus.

See also *Lactobacillus acidophilus*.

Bacillus Calmette-Guérin: Analysis (Cooper)

1930, 88, 485

R and S type, medium (Cooper)

1930, 88, 493

Bacteria: Carbon (Hopkins, Peterson, and Fred)

1929-30, 85, 21

Carotene synthesis by (Baumann, Steenbock, and Ingraham)

1933, 100, xiii

Chemical study (Coghill and Bird)

1929, 81, 115

(Renfrew)

1929, 83, 569

1930, 89, 619

Colon and *aerogenes*, trehalose fermentation (Poe and Field)

1932-33, 99, 283

Cultures, indole determination, Bergeim fecal indole method (Pierce and Kilborn)

1929, 81, 381

Enzyme, proteolytic, formaldehyde-stable (Boor and Miller)

1933, 100, xix

Feces, lipid partition (Sperry)

1929, 81, 299

Nitrogen (Hopkins, Peterson, and Fred)

1929-30, 85, 21

Vitamin A synthesis by (Baumann, Steenbock, and Ingraham)

1933, 100, xiii

See also *Clostridium acetobutylicum*, *Corynebacterium*.

- Baking powder:** Aluminum compounds in residues, solubility, stomach and duodenum (MYERS and KILLIAN) 1928, 78, 591
- Banana:** Seed, globulin, crystalline (KEENAN and WILDMAN) 1930, 88, 425
- Barbituric acid:** Acid imides, biuret reaction (RISING and JOHNSON) 1928, 80, 709
- Iso-, metabolism (STEKOL and CERECEDO) 1933, 100, 653, xc
- Barium:** Amalgam electrodes, amphoteric substances, solutions, behavior (KIRK and SCHMIDT) 1928, 76, 115
- Barium peroxide:** Sugar-induced oxidations, formation (SHAFER and HARNED) 1931, 93, 311
- Barley:** Glutelins (CSONKA and JONES) 1929, 82, 17
—, optical rotation (CSONKA, HORN, and JONES) 1930, 89, 267
- Basal metabolism:** Children, Chinese, American-born (WANG and HAWKS) 1930, 87, v
- Nomogram, height-weight coordinates (BRUEN) 1929-30, 85, 607
- Vegetarians (WAKEHAM and HANSEN) 1932, 97, 155
- Women (TILT) 1930, 86, 635
- Base:** Blood serum composition, injection influence (BALL) 1930, 86, 433
— —, pregnancy (OARD and PETERS) 1929, 81, 9
- Base—continued:**
- Combining properties, blood (STADIE and HAWES) 1928, 77, 241, 265
(STADIE) 1928, 77, 303
- Conservation, diet low in inorganic constituents, mechanism (BROOKE and SMITH) 1932, 97, cv
- Edestin (VICKERY and LEAVENWORTH) 1928, 76, 707
- Fixed, urine, microdetermination (HOFFMAN) 1931, 93, 787
- Pancreatic juice composition, injection influence (BALL) 1930, 86, 433
- Total, determination (WRIGHT and ALLISON) 1933, 100, 1
- Bean:** Jack, meal, urease, crystalline (SUMNER and HOLLOWAY) 1928, 79, 489
- Navy, hemagglutinin preparation (GODDARD and MENDEL) 1929, 82, 447
- Soy, amino acid deficiency, growth effect (MITCHELL and SMUTS) 1932, 95, 263
- , proteins, precipitation, ammonium sulfate (JONES and CSONKA) 1932, 97, xxix
—, urease (KIRK) 1933, 100, 667
- Beef:** Amino acid deficiency, growth effect (MITCHELL and SMUTS) 1932, 95, 263
- Tissue feeding, blood serum cholesterol, lecithin phosphorus, and fatty acids, effect (MULLER) 1929, 84, 345
- Bence-Jones:** Protein (MEDES) 1933, 100, lxi

- Benedict-Myers:** Carbohydrate reduction, Hagedorn-Jensen, Folin-Wu, comparison (PUCHER and FINCH) 1928, 76, 331
- Benzene:** Monobromo-, urine sulfur, dietary protein, *l*-cystine, and *dl*-methionine, ingestion effect (WHITE and LEWIS) 1932, 98, 607
- Benzidine:** Blood hemoglobin determination, reagent (BING) 1932, 95, 387
Purification (BING) 1932, 95, 387
- Benzoic acid(s):** Conjugation (QUICK) 1928, 77, 581
1932, 95, 189
—, liver injury effect (QUICK and COOPER) 1932-33, 99, 119
—, man (QUICK) 1931, 92, 65
Hydroxy-, conjugation (QUICK) 1932, 97, lxix, 403
Methoxy-, conjugation (QUICK) 1932, 97, 403
Substituted, conjugation (QUICK) 1932, 96, 83
- o*-Benzoquinone:** Cysteine test (HESS and SULLIVAN) 1932-33, 99, 95
- Benzoylamminocinnamic acid:** Derivatives, mercaptan addition (NICOLET) 1932, 95, 389
- Benzyl alcohol:** Hippuric acid elimination, ingestion effect (DIACK and LEWIS) 1928, 77, 89
- Bergeim:** Utilization coefficient, standard methods and, comparison (HELLER, BREED-LOVE, and LIKELY) 1928, 79, 275
- Beryllium:** Rickets (BRANION, GUYATT, and KAY) 1931, 92, xi
- Betaine:** Trimethyl- α -glutaro- (DAKIN and WEST) 1929, 83, 773
- Bicarbonate:** Blood, distribution (MUNTWYLER, ROSE, and MYERS) 1931, 92, xc
(MUNTWYLER, MYERS, and WAY) 1931, 92, 721
—, —, normal and pathological (HASTINGS, SENDROY, MCINTOSH, and VAN SLYKE) 1928, 79, 193
— plasma and ascitic fluid, comparison (MUNTWYLER, WAY, and POMERENE) 1931, 92, 733
— — — cells, distribution between (MUNTWYLER, ROSE, and MYERS) 1931, 92, xc
(MUNTWYLER, MYERS, and WAY) 1931, 92, 721
— — — cerebrospinal fluid, comparison (MUNTWYLER, WAY, and POMERENE) 1931, 92, 733
—Sodium chloride, hemoglobin systems, Debye-Hückel theory (STADIE) 1928, 77, 303
- Bicarbonate ion:** Activity coefficient, various solutions at varying ionic strengths (STADIE and HAWES) 1928, 77, 265
- Bile:** Cholic acid determination (REINHOLD and WILSON) 1932, 96, 637
Constituents, bile salts solutions, behavior (SPANNER and BAUMAN) 1932, 98, 181
Fistula, lipids, feces, partition (SPERRY) 1929-30, 85, 455

Bile—continued:

Gallstone solubility in (PICKENS, SPANNER, and BAUMAN) 1932, 95, 505

Injection, blood and bile, effect (GREENE and SNELL)

1928, 78, 691

Metabolism (ALDRICH and BLEDSOE) 1928, 77, 519

(GREENE and SNELL)

1928, 78, 691

(GREENE, ALDRICH, and ROWNTREE) 1928, 80, 753

Solutions, calcium stearate solubility (LANGLEY, ROSENBAUM, and ROSENBAUM)

1932-33, 99, 271

Bile acids: Blood, determination (ALDRICH and BLEDSOE)

1928, 77, 519

Determination, colorimetric, with monochromatic light (GREGORY and PASCOE)

1929, 83, 35

Enterohepatic circulation (GREENE, ALDRICH, and ROWNTREE) 1928, 80, 753

Bile salt(s): Amount circulating in body (WHIPPLE and SMITH) 1928, 80, 697

Gastric ulcer production, thyroid and, relation (SCHMIDT) 1933, 100, lxxxvi

Metabolism (SMITH and WHIPPLE) 1928, 80, 671

(WHIPPLE and SMITH)

1928, 80, 685, 697

(SMITH and WHIPPLE)

1930, 89, 739

—, dietary proline, tryptophane, and glycine, effect (WHIPPLE and SMITH)

1930, 89, 705

Bile salt(s)—continued:

Metabolism, indene, hydrindene, and isatin, effect (SMITH and WHIPPLE)

1930, 89, 719

—, liver injury and stimulation, effect (WHIPPLE and SMITH) 1930, 89, 727

—, proteins, effect (SMITH and WHIPPLE) 1930, 89, 689

—, study technique (SMITH, GROTH, and WHIPPLE)

1928, 80, 659

Output, Eck fistula effect (SMITH and WHIPPLE)

1930, 89, 739

—, egg yolk and yeast, influence (SMITH and WHIPPLE) 1928, 80, 671

—, fasting (SMITH, GROTH, and WHIPPLE) 1928, 80, 659

—, liver and kidney feeding, influence (SMITH and WHIPPLE) 1928, 80, 671

—, meat and meat extractives, influence (SMITH and WHIPPLE) 1928, 80, 671

—, tryptophane and tyrosine influence (WHIPPLE and SMITH) 1928, 80, 685

Solutions, cholesterol and bile constituents, behavior (SPANNER and BAUMAN)

1932, 98, 181

Thyroxine and, relationship (TASHIRO and SCHMIDT)

1931, 92, lviii

Bilirubin: Renal threshold (RABINOWITCH) 1932, 97, 163

Biological fluids: (See note on p. 173)

Biological materials: (See note on p. 173)

Biological systems: Directive influences (FALK)

1932, 96, 53

(FALK and MCGUIRE)

1932, 97, 651

Bioluminescence: Mechanism

(HARVEY) 1928, 78, 369

Biuret reaction: Acid imides, barbituric acid type (RISING and JOHNSON)

1928, 80, 709

Amino acid amides (RISING and YANG)

1932-33, 99, 755

Di-acid amides (RISING, HICKS, and MOERKE)

1930, 89, 1

Blood: (See note on p. 173)**Acid-base (EARLE and CULLEN)**

1929, 83, 539

(ROBINSON, PRICE, and CULLEN)

1930, 100, lxxxii, lxxxiii

—, diurnal changes (CULLEN and EARLE)

1929, 83, 545

— equilibrium, eclampsia (STANDER, EASTMAN, HARRISON, and CADDEN)

1929-30, 85, 233

— —, hemorrhage effect

(JOHNSTON and WILSON)

1929-30, 85, 727

— —, pregnancy toxemias

(MUNTWYLER, LIMBACH,

BILL, and MYERS)

1931, 90, 607

— —, rickets and tetany

(SHOHL, BROWN, ROSE,

SMITH, and COZAD)

1931, 92, 711

— —, vitamin B deprivation,

effect (BURACK and COW-

GILL) 1932, 96, 673

Blood—continued:**Acid-combining properties**

(STADIE and HAWES)

1928, 77, 241, 265

(STADIE) 1928, 77, 303

Alkaline reserve, arterial and

venous (HURXTHAL, BOCK,

TALBOTT, and DILL)

1929, 81, 681

— —, vitamin B deficiency in-

fluence (SURE and SMITH)

1929, 84, 727

Analysis (BENEDICT)

1931, 92, 135, 141

(BENEDICT and BEHRE)

1931, 92, 161

(BENEDICT and GOTTSCHALL)

1932-33, 99, 729

—, unlaked blood as basis

(FOLIN) 1930, 86, 173

Anemia, pernicious, recovery

effect (DILL, BOCK, VAN

CAULAERT, FÖLLING, HURX-

THAL, and HENDERSON)

1928, 78, 191

Base-combining properties

(STADIE and HAWES)

1928, 77, 241, 265

(STADIE) 1928, 77, 303

Bile injection effect (GREENE

and SNELL) 1928, 78, 691

Bromide injection effect

(HASTINGS, HARKINS, and

LIU) 1931-32, 94, 681

Calcium citrate-like compound

in (GREENBERG and GREEN-

BERG) 1932, 97, ciii

1932-33, 99, 1

Carbon dioxide evolution from

(VAN SLYKE and HAWKINS)

1930, 87, 265

Blood—continued:

- Carbon monoxide determination by absorption with (SENDROY) 1932, 95, 599
- Constituent, new (ROCKWOOD, TURNER, and PFIFFNER) 1929, 83, 289
- Crocodile, physicochemical properties (DILL and EDWARDS) 1931, 90, 515
- Deproteinization, copper and iron salts for (SOMOGYI) 1931, 90, 725
- Diabetic coma, physicochemical properties (DILL, BOCK, LAWRENCE, TALBOTT, and HENDERSON) 1929, 81, 551
- Dietary calcium-phosphorus ratio, effect (BETHKE, KICK, and WILDER) 1932, 98, 389
- Dog, properties (DILL, EDWARDS, FLORKIN, and CAMPBELL) 1932, 95, 143
- Electrolyte equilibrium, acidosis (HARKINS and HASTINGS) 1931, 90, 565
- Ergosterol, irradiated, effect (HESS, LIGHT, FREY, and GROSS) 1932, 97, 369
- Exhaustion effect (SCHLUTZ, HASTINGS, and MORSE) 1933, 100, lxxxv
- Fasting, changes, puppies (PUCHER) 1928, 76, 319
- Filtrates, metal salts, heavy, preparation (SOMOGYI) 1930, 87, xxxii
- Fish, marine, concentration (HALL) 1928, 76, 623
- Fluids, gas solubility in (GROLLMAN) 1929, 82, 317

Blood—continued:

- Gas and electrolyte equilibrium (VAN SLYKE, SENDROY, HASTINGS, and NEILL) 1928, 78, 765
- (VAN SLYKE and SENDROY) 1928, 78, 801
- (HASTINGS, SENDROY, and VAN SLYKE) 1928, 79, 183
- (HASTINGS, SENDROY, MCINTOSH, and VAN SLYKE) 1928, 79, 193
- (VAN SLYKE, HASTINGS, HILLER, and SENDROY) 1928, 79, 769
- (VAN SLYKE and SENDROY) 1928, 79, 781
- (VAN SLYKE and HAWKINS) 1930, 87, 265
- solubility in (GROLLMAN) 1929, 82, 317
- Glycolysis, arsenate effect (MORGULIS and PINTO) 1932, 95, 621
- (BRAUNSTEIN) 1932, 98, 379
- (MORGULIS and PINTO) 1932, 98, 385
- Inanition effect (SCHLUTZ and MORSE) 1932, 97, lix
- Inorganic composition (KERR) 1929-30, 85, 47
- constituents, normal and parathyroidectomized dogs (WEAVER and REED) 1929-30, 85, 281
- Lactation effect (DAVIS and BODANSKY) 1932, 97, lv
- Lactic acid oxidation to pyruvic acid by methylene blue, effect (WENDEL and SHAFFER) 1930, 87, xx

Blood—continued:

- Limulus polyphemus*, sea water, relation (DAILEY, FREMONT-SMITH, and CARROLL) 1931, 93, 17
- Magnesium deprivation effect (KRUSE, ORENT, and MCCOLLUM) 1932, 97, iii
1933, 100, 603
- Meat diet effect (TOLSTOI) 1929, 83, 753
- Media, hydrogen ion concentration determination, micro electrode and vessel (SALLE) 1929, 83, 765
- Menstrual, women (OKEY) 1928, 78, xiii
- Muscle fatigue, effect (SCHLUTZ and MORSE) 1932, 97, lix
- Optical activity, lactic acid relationship, glycolysis effect (WRIGHT, HERR, and PAUL) 1928, 80, 571
- Osmotic pressure, colloidal, diabetes mellitus (RABINOWITCH) 1930, 87, lvii
- Oxidation-reduction potential (HANKE and TUTA) 1928, 78, xxxvi
- Oxidations, induced (WENDEL and SHAFFER) 1930, 87, xx
(WENDEL) 1931, 92, xlvii
- Oxygen capacity, arterial and venous (HURXTHAL, BOCK, TALBOTT, and DILL) 1929, 81, 681
- Oxygen-combining properties (STADIE and HAWES) 1928, 77, 241, 265
(STADIE) 1928, 77, 303

Blood—continued:

- Oxygenated, physicochemical properties (HENDERSON, DILL, EDWARDS, and MORGAN) 1931, 90, 697
- Physicochemical system (DILL, BOCK, VAN CAULAERT, FÖLLING, HURXTHAL, and HENDERSON) 1928, 78, 191
(DILL, BOCK, LAWRENCE, TALBOTT, and HENDERSON) 1929, 81, 551
(HENDERSON, BOCK, DILL, and EDWARDS) 1930, 87, 181
(HENDERSON, DILL, EDWARDS, and MORGAN) 1931, 90, 697
- Pigment determination, spectrophotometric (RAY, BLAIR, and THOMAS) 1932, 98, 63
- , oxygen capacity, hepatectomy effect (STIMSON and HRUBETZ) 1928, 78, 413
- Pregnancy effect (DAVIS and BODANSKY) 1932, 97, lv
- Preservation (ROSE and SCHATTNER) 1931, 92, xvii
- Rat, composition (ANDERSON, HONEYWELL, SANTY, and PEDERSEN) 1930, 86, 157
- Ration deficient in inorganic constituents, effect (SWANSON and SMITH) 1932, 98, 479
- poor in inorganic salts, effect (SWANSON and SMITH) 1932, 98, 499
- Rattlesnake (LUCK and KEELER) 1929, 82, 703
- Reaction, cancer (MILLET) 1929, 82, 263

Blood—continued:

- Reducing substances, fish
(WHITE) 1928, 77, 655
- —, non-glucose, colon bacillus action (HUBBARD and DEEGAN) 1930, 86, 575
- —, non-sugar (BENEDICT and NEWTON) 1929, 83, 361
- Regeneration, anemia, nutritional, inorganic elements, effect (BEARD) 1931-32, 94, 135
- , —, —, iron effect (BEARD and MYERS) 1931-32, 94, 71
- , —, —, — plus inorganic elements, effect (MYERS and BEARD) 1931-32, 94, 89
- , —, severe (ROBSCHT-ROBBINS, ELLEN, SPERRY, and WHIPPLE) 1928, 79, 563
- (ELLEN, SPERRY, ROBSCHT-ROBBINS, and WHIPPLE) 1928, 79, 577
- (SPERRY, ELLEN, ROBSCHT-ROBBINS, and WHIPPLE) 1929, 81, 251
- Respiratory exchange, anemia, pernicious, during recovery (DILL, BOCK, VAN CAULAERT, FÖLLING, HURKTHAL, and HENDERSON) 1928, 78, 191
- Saccharoids, determination (BENEDICT) 1931, 92, 141
- Sarcoma, Rous No. 1 (ROE) 1930, 87, liv
- Scurvy-producing diets, effect (HANKS and KOESSLER) 1928, 80, 499
- Tyramine administration effect (HANKS and KOESSLER) 1928, 80, 499

Blood—continued:

- Undiluted, spectrophotometric study (AUSTIN and DRABKIN) 1933, 100, x
- Vitamin B effect (SURE, SMITH, KIK, and WALKER) 1931, 92, viii
- Volume, cobalt polycythemia (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932-33, 99, 457
- Yeast, irradiated, effect (HESS, LIGHT, FREY, and GROSS) 1932, 97, 369
- Blood cell: (*See note on p. 178*)
- Carbon dioxide solubility in (VAN SLYKE, SENDROY, HASTINGS, and NEILL) 1928, 78, 765
- Freezing point (COLLINS and SCOTT) 1932, 97, 189
- Hydrogen solubility in (VAN SLYKE and SENDROY) 1928, 78, 801
- Metabolism (BARRON and HARROP) 1928, 79, 65
- (BARRON) 1929, 81, 445
- 1929, 84, 83
- (BARRON and HARROP) 1929, 84, 89
- Red, anemia, nutritional, iron plus supplements, action (BEARD and MYERS) 1931, 92, lxii
- (BEARD, BAKER, and MYERS) 1931-32, 94, 123
- , avian, glycolysis, methylene blue and dye, effect (BARRON and HARROP) 1928, 79, 65
- , —, lactic acid formation, methylene blue and dye, effect (BARRON and HARROP) 1928, 79, 65

Blood cell—continued:

Red, calcium absence (LEIBOFF)
1929-30, 85, 759

—, hemolysis, phenylhydrazine
hydrochloride (KRAFFKA)
1930, 86, 223

—, mammalian, glycolysis,
methylene blue and dye, effect
(BARRON and HARROP)
1928, 79, 65

—, —, lactic acid formation,
methylene blue and dye, ef-
fect (BARRON and HARROP)
1928, 79, 65

—, potassium permeability,
blood serum influence (KERR)
1929-30, 85, 47

—, respiration acceleration, cy-
anide effect (WENDEL)
1931, 92, xlvii

—, sodium permeability, blood
serum influence (KERR)
1929-30, 85, 47

—, sugar, insulin effect (TRIM-
BLE and MADDOCK)
1928, 78, 323

Volume, hydrogen ion concen-
tration effect (DILL)
1928, 76, 543

White, metabolism (BARRON
and HARROP) 1929, 84, 89

—, oxygen consumption, gly-
colysis, and lactic acid for-
mation, methylene blue effect
(BARRON) 1929, 84, 83

See also Reticulocyte.

Blood plasma: (See note on p. 173)

Cerebrospinal fluid and, equi-
librium between (MERRITT
and BAUER)
1931, 90, 215, 233
(DAILEY) 1931, 93, 5

Blood plasma—continued:

Clotting, interfacial adsorption
factor (JOHLIN)
1929, 81, 99

Molecular concentration, total,
glomerular urine, compari-
son, frog and *Necturus*
(WALKER) 1930, 87, 499

Reducing substances, frog and
Necturus (WALKER, ELLIN-
WOOD, and REISINGER)
1932, 97, lxxii

Blood platelets: Fragility, deter-
mination (IRISH)
1933, 100, lvi

Blood pressure: Theelol effect
(MELCHIONNA)
1931, 91, 653

Blood serum: (See note on p. 173)

Acid and base injection, influ-
ence (BALL) 1930, 86, 433

Anemia, potassium ferricya-
nide oxidation effect
(WRIGHT and ARTHUR)
1931, 90, 757

Blood cell, red, potassium and
sodium permeability, influ-
ence (KERR)
1929-30, 85, 47

Calcium ions, binding by
(SHEAR and OFFNER)
1931, 91, 291

Carbon dioxide solubility in
(VAN SLYKE, SENDROY,
HASTINGS, and NEILL)
1928, 78, 765

Colloid osmotic pressure, de-
termination (TURNER)
1932, 96, 487

Dissociation constant, first
(ROBINSON, PRICE, and CUL-
LEN) 1933, 100, lxxxii

Blood serum—continued:

Dissociation constant, first,
Henderson - Hasselbalch
equation (HASTINGS, SEND-
ROY, and VAN SLYKE)
1928, 79, 183

Electrolyte distribution, dialy-
sate, *in vivo*, and (GREENE
and POWER) 1931, 91, 183

— —, transudates and
(GREENE, BOLLMAN, KEITH,
and WAKEFIELD)
1931, 91, 203

Equilibration, dicalcium phos-
phate (SHEAR and KRAMER)
1930, 86, 677

Freezing point (COLLINS and
SCOTT) 1932, 97, 189

Hydrogen solubility in (VAN
SLYKE and SENDROY)
1928, 78, 801

Inorganic salts injection, influ-
ence (BALL) 1930, 86, 449

Lipid-free, preparation
(GREENWALD and LEVY)
1930, 87, 281

Osmotic pressure, proteins and
lipids, relation (FISHBERG)
1929, 81, 205

Pigment, yellow (DRABKIN)
1928, 78, xii

Saliva, parotid, inorganic con-
stituents, and, relation (DE
BEER and WILSON)
1932, 95, 671

Solutions, dicalcium phosphate,
equilibration (SHEAR, WASH-
BURN, and KRAMER)
1929, 83, 697

Surface tension, carbon dioxide
equilibration effect (JOHLIN)
1928, 76, 559

Viscosity changes (FISHBERG)
1929-30, 85, 465

Blood sugar: Capillary, fluc-
tuations (TRIMBLE and
MADDOCK) 1929, 81, 595

—, sleep and exercise effect
(TRIMBLE and MADDOCK)
1929, 81, 595

—, women, diurnal fluctuations
(DIONNE and ARENSTAM)
1930, 87, 393

Choline influence (UNDERHILL
and PETRELLI)
1929, 81, 159

Combined, tungstic acid fil-
trates (SCHARLES and WEST)
1931, 93, 359

Creatine effect (HILL)
1928, 78, iv
(HILL and MATTISON)
1929, 82, 679

Curves, glucose and insulin
effect (RABINOWITCH and
BAZIN) 1928, 80, 723

—, insulin and liver disease,
effect (FRIEDENSON, ROSEN-
BAUM, THALHEIMER, and PE-
TERS) 1928, 80, 269

Cutaneous, galactose ingestion
effect (HARDING and GRANT)
1932-33, 99, 629

Determination (BENEDICT)
1928, 76, 457

(FOLIN) 1928, 77, 421
(RAYMOND and BLANCO)

1928, 79, 649
1928, 80, 631

(HAWKINS and VAN SLYKE)
1929, 81, 459

(BENEDICT) 1929, 83, 165
1931, 92, 141

(TAUBER and KLEINER)
1932-33, 99, 249

Blood sugar—continued:

- Determination, Benedict's alkaline copper solution (EVERETT) 1929, 82, 369
 —, copper methods, revised (FOLIN) 1929, 82, 83
 —, different methods (FOLIN and MALMROS) 1929, 83, 121
 —, filtrates, preparation (SOMOGYI) 1930, 86, 655
 —, gasometric (VAN SLYKE and HAWKINS) 1928, 79, 739
 Diabetes, dialysis rate (BELL and KLEINER) 1930, 87, xxxv
 —, distribution (SHOPE) 1928, 78, 111
 (SPANNUTH and POWER) 1931, 93, 343
 Dialysis rate (BELL and KLEINER) 1930, 87, xxxv
 Distribution (SHOPE) 1928, 78, 107
 (SOMOGYI) 1928, 78, 117
 1931, 90, 731
 (SPANNUTH and POWER) 1931, 93, 343
 —, insulin effect (SHOPE) 1928, 78, 111
 Duodenal extract action (LAUGHTON, MACALLUM, RABINOWITCH, and WATSON) 1931, 92, xx
 Eel (McCAY) 1931, 90, 497
 Epinephrine effect (CORI and CORI) 1929, 84, 699
 Fermentable, determination, different methods (FOLIN and MALMROS) 1929, 83, 121
 —, —, gasometric (VAN SLYKE and HAWKINS) 1929, 83, 51
 Ferricyanide method (FOLIN) 1929, 81, 231

Blood sugar—continued:

- Fish (McCAY) 1931, 90, 497
 Foreign, disappearance rate (FISHBERG) 1930, 86, 665
 Galactose ingestion (HARDING and VAN NOSTRAND) 1929-30, 85, 765
 d-Glucal, d-hydroglucal, and d-2-glucodesose influence (FREUDENBERG) 1932-33, 99, 647
 Hydrolyzable (EVERETT and SHEPPARD) 1928, 80, 255
 Insulin, injection effect (SAH-YUN and BLATHERWICK) * 1928, 77, 459
 Lactation (HARDING and DOWNS) 1929, 84, 335
 Microdetermination (FOLIN and MALMROS) 1929, 83, 115
 —, unlaked blood (FOLIN and SVEDBERG) 1930, 88, 85
 Muscle, skeletal, effect (SAH-YUN and ALSBERG) 1929, 83, 129
 Nature (SOMOGYI and KRAMER) 1928, 80, 733
 (FOLIN) 1929, 81, 377
 (SOMOGYI) 1929, 83, 157
 1931, 92, xxii
 (POWER and GREENE) 1931-32, 94, 295
 Non-glucose (HUBBARD and DEEGAN) 1928, 78, lvii
 Reducing, determination, micro time method (HAWKINS) 1929, 84, 69
 State (POWER and GREENE) 1931-32, 94, 281
 Total (EVERETT and SHEPPARD) 1928, 80, 255
 (EVERETT) 1930, 87, 761

Blood sugar—continued:

True, determination (WEST,
SCHARLES, and PETERSON)
1929, 82, 137

—, vitamin B deficiency influ-
ence (SURE and SMITH)
1929, 84, 727

Turtle (McCAY)
1931, 90, 497

Utilization, epinephrine influ-
ence (CORI and CORI)
1929, 84, 683

Body constituents: Growth, re-
lation (CHANUTIN)
1931, 93, 31

Bone: Ash (MORGULIS)
1931, 93, 455

(HESS, BERLINER, and
WEINSTOCK) 1931-32, 94, 9

Calcification, pathological
(KRAMER and SHEAR)
1928, 79, 121

—, primary (KRAMER and
SHEAR) 1928, 79, 147

Calcium determination (WASH-
BURN and SHEAR)
1932-33, 99, 21

— salts (BOGERT and HAST-
INGS) 1931-32, 94, 473

Carbon dioxide determination,
Krogh-Rehberg apparatus
(POWER and ADAMS)
1933, 100, lxxx

Composition (SHEAR and
KRAMER) 1928, 79, 105
(KRAMER and SHEAR)

1928, 79, 121, 147

(SHEAR and KRAMER)

1928, 79, 161

(KRAMER, SHEAR, and Mc-
KENZIE) 1929, 82, 555

(SHEAR, WASHBURN, and
KRAMER) 1929, 83, 697

Bone—continued:

Composition (SHEAR, KRAMER,
and RESNIKOFF)

1929, 83, 721

(SHEAR and KRAMER)

1930, 86, 677

(KRAMER, SHEAR, and SIE-
GEL) 1931, 91, 271

(SHEAR and OFFNER)
1931, 91, 291

(KRAMER, SHEAR, and SIE-
GEL) 1931, 91, 723

(WASHBURN and SHEAR)
1932-33, 99, 21

—, physicochemical mecha-
nism (SHEAR and KRAMER)
1928, 79, 125

Disease, blood plasma phos-
phatase (KAY) 1930, 87, lii
1930, 89, 249

—, calcium and phosphorus
metabolism, relation
(STEARNS and BOYD)

1930, 87, xv, lvi

— See also Ostitis fibrosa.

Ergosterol, irradiated, effect
(KRAMER, SHEAR, and Mc-
KENZIE) 1929, 82, 555

Fluorine effect (McCLURE and
MITCHELL) 1931, 90, 297

Formation, sunlight, winter,
effect (RUSSELL and Ho-
WARD) 1931, 91, 493

Magnesium determination
(WASHBURN and SHEAR)
1932-33, 99, 21

— salts solutions, solubility
(FORBES) 1931, 93, 255

Microanalysis (SHEAR and
KRAMER) 1928, 79, 105

Parathyroid extract effect
(MORGAN, KIMMEL,
THOMAS, and SAMISCH)

1933, 100, lxxi

Bone—continued:

- Phosphate determination
(WASHBURN and SHEAR) 1932-33, 99, 21
- Roentgen ray analysis (ROSEBERRY, HASTINGS, and MORSE) 1931, 90, 395
- Vioosterol effect (MORGAN, KIMMEL, THOMAS, and SAMISCH) 1933, 100, lxxi
- See also* Femur, Metaphysis, Skeleton, Tibia.
- Borate:** Glucose oxidation, effect (LEVY and DOISY) 1928, 77, 733
- Sugar oxidation, effect (LEVY and DOISY) 1928, 77, 733
- reaction with (LEVY) 1928, 78, liii
- Sugars and, reaction (LEVY and DOISY) 1929, 84, 749
- (LEVY) 1929, 84, 763
- Borax:** Sugars, freezing point lowering (LEVY) 1929, 84, 763
- , optical activity (LEVY and DOISY) 1929, 84, 749
- Boric acid:** Absorption and excretion time (KAHLENBERG and BARWASSER) 1928, 79, 405
- Brain:** Calcium, rickets and tetany (HESS, GROSS, WEINSTOCK, and BERLINER) 1932, 98, 625
- Extracts, depressor activity (WEBER, NANNINGA, and MAJOR) 1932, 97, xcvi
- Fatty acids, unsaturated, highly, beef (BROWN) 1932, 97, 183
- — —, beef, hog, and sheep (BROWN and AULT) 1930, 89, 167

Brain—continued:

- Fatty acids, unsaturated, highly, nature (BROWN) 1931, 92, lxxxviii
- Lipids, fatty acid, unsaturated, highly, new (BROWN) 1929, 83, 783
- Phosphorus, rickets and tetany (HESS, GROSS, WEINSTOCK, and BERLINER) 1932, 98, 625
- Bran:** Prepared, hemoglobin regeneration (ROSE and VAHLTEICH) 1932, 96, 593
- (ROSE and KUNG) 1932, 98, 417
- Brassica chinensis:** Vitamin B₁ adsorption (MILLER and ABEL) 1933, 100, 731
- Breathing:** Urine water and chlorides, overbreathing effect (SIMPSON and WELLS) 1928, 76, 171
- Bromide(s):** Biological material, determination (BEHR, PALMER, and CLARKE) 1930, 88, 131
- Blood composition, injection effect (HASTINGS, HARKINS, and LIU) 1931-32, 94, 681
- , distribution (HASTINGS and VAN DYKE) 1928, 78, xxxv
- , —, sodium bromide ingestion effect (VAN DYKE and HASTINGS) 1931, 92, 27
- , elimination (PALMER and CLARKE) 1932-33, 99, 435
- , *in vitro*, distribution (HASTINGS and VAN DYKE) 1931, 92, 13
- Urine composition, injection effect (HASTINGS, HARKINS, and LIU) 1931-32, 94, 681

Bromoacetyl sugars: Preparation
(LEVENE and RAYMOND)
1931, 90, 247

1-Bromotetramethylglucose: Glycosides, methylated, use in synthesis (LEVENE and CORTESE)
1932, 98, 17

Buffer: Phosphate mixtures, hydrogen ion concentration, neutral salts influence (ROBINSON)
1929, 82, 775

Solutions, carbon dioxide evolution from (VAN SLYKE and HAWKINS)
1930, 87, 265

Systems, carbon dioxide reactions, kinetics (STADIE and O'BRIEN)
1933, 100, lxxxviii

Bufo marinus: See Toad.

Butter: Fatty acids, unsaturated, highly (ECKSTEIN)
1932, 97, xxxv

Butter fat: Vitamin A, mineral oil effect on nutritional economy of (JACKSON)
1931, 92, vii

Butyl alcohol: Acetone-, fermentation, substrate and products, oxidation-reduction relations (JOHNSON, PETERSON, and FRED)
1931, 91, 569

Butylmethane: Methyliso-, series, hydrocarbons, optical rotations (LEVENE and MARKER)
1931, 92, 455

Butyric acid: 3-Chloro-, 3-hydroxybutyric acid, configurational relationship (LEVENE and HALLER)
1929, 81, 425
 ω -Hydroxy derivatives, fate, phlorhizin effect (CORLEY and MARVEL)
1929, 82, 77

Butyric acid—continued:

3-Hydroxy-, 3-chlorobutyric acid, configurational relationship (LEVENE and HALLER)
1929, 81, 425

—, methylpropylcarbinol, configurational relationship (LEVENE and HALLER)
1929, 81, 425

Phenyl-, fate, pancreatectomy (SWEET and QUICK)
1928, 80, 527

Butyrin: Tri-, metabolism (DAVIS)
1930, 88, 67

C

Cabbage: Blood serum calcium, effect (KAPSINOW and UNDERHILL)
1929, 82, 377
(CULHANE)
1930, 86, 113

Leaf, respiration, hexuronic acid function (SZENT-GYÖRGYI)
1931, 90, 385

See also Brassica chinensis.

Cage: Glass, anemia studies (SKINNER, STEENBOCK, and PETERSON)
1932, 97, 227

Metal, anemia, nutritional studies (GERAGHTY, UNDERHILL, ORTEN, and LEWIS)
1932-33, 99, 451

Calcification: Bone, pathological (KRAMER and SHEAR)
1928, 79, 121

—, primary (KRAMER and SHEAR)
1928, 79, 147

Dietary calcium-phosphorus ratio, effect (BETHKE, KICK, and WILDER)
1932, 98, 389

In vitro (SHELLING, KRAMER, and ORENT)
1928, 77, 157

Inorganic factors determining (SHELLING, KRAMER, and ORENT)
1928, 77, 157

Calcification—continued:

Kidney epithelium, vitamin A deficiency, relation (VAN LEEERSUM) 1928, 79, 461

Milk and milk derivatives, irradiated, calcifying properties (SUPPLEE, FLANIGAN, KAHLENBERG, and HESS)

1931, 91, 773

Tibia, new-born (BOOHER and HANSMANN)

1931-32, 94, 195

Tissue, Roentgen ray and microscopic investigation by (TAYLOR and SHEARD)

1929, 81, 479

Calcium: Absorption, lactose, dietary acid-base content, and intestinal hydrogen ion concentration, effect (ROBINSON and DUNCAN) 1931, 92, 435

Aqueous humor, parathyroid activity effect (MERRITT and BAUER) 1931, 90, 233

Assimilation, cod liver oil effect (GREENWALD and GROSS)

1929, 82, 505

—, dietary factors influencing (HART, STEENBOCK, TEUT, and HUMPHREY)

1929, 84, 359, 367

(HART, STEENBOCK, KLINE, and HUMPHREY)

1930, 86, 145

Balance, cod liver oil effect (HART, TOURTELLOTT, and HEYL) 1928, 76, 143

—, exercise effect (TURNER and HARTMAN) 1928, 78, xxvii

—, irradiation effect (HART, TOURTELLOTT, and HEYL)

1928, 76, 143

Calcium—continued:

Balance, lactation (HUNSCHER) 1928, 78, xxvi

—, negative, ultra-violet radiations, antirachitic relationship (STEENBOCK, HART, RISING, KLETZIEN, and SCOTT) 1930, 87, 127

Biological materials, determination, McCrudden method (FREAR and KAHLENBERG)

1933, 100, 85

Blood (TWEEDY and CHANDLER) 1928, 78, lxxiii

— cell (RYMER and LEWIS) 1932, 95, 441

— —, red, human, absence (LEIBOFF) 1929-30, 85, 759

—, determination, colorimetric (ROE and KAHN)

1929, 81, 1

—, parathyroidectomy (TWEEDY and CHANDLER)

1928, 78, lxxiii

— plasma, parathyroidectomy (REED) 1928, 77, 547

—, precipitation by lead (BISCHOFF and MAXWELL)

1928, 79, 5

— serum (MORGULIS and PERLEY) 1930, 88, 169

— —, cabbage effect (KAPSI-NOW and UNDERHILL)

1929, 82, 377

(CULHANE) 1930, 86, 113

— —, children, non-nephritic, blood serum protein and inorganic phosphorus, non-relationship (STEARNS and KNOWLTON)

1931, 92, xii, 639

Calcium—continued:

- Blood serum, determination, colorimetric (ROE) 1928, 78, xlviii
- —, —, gasometric (VAN SLYKE and SENDROY) 1929, 84, 217
- —, diet effect (DUPRÉ and SEMEONOFF) 1931-32, 94, 341
- —, diffusible and non-diffusible, calcium salts injection, effect (SMITH and STERNBERGER) 1932, 96, 245
- —, — non-diffusible, determination (GREENBERG and GUNTHER) 1929-30, 85, 491
- —, —, ultrafiltration (NICHOLAS) 1932, 97, 457
- —, diurnal variation (DUPRÉ and SEMEONOFF) 1931-32, 94, 341
- —, ergosterol, activated, effect (MASSENGALE and NUSSMEIER) 1930, 87, 415
- —, forms (BENJAMIN) 1933, 100, 57
- —, —, normal, rachitic, and hypercalcemic conditions (BENJAMIN and HESS) 1933, 100, 27
- —, hypercalcemia, viosterol, source (SHELLING) 1932, 96, 229
- —, inanition (SCHELLING) 1930, 89, 575
- —, parathyroid activity effect (MERRITT and BAUER) 1931, 90, 233
- —, — hormone, effect (MORGULIS and PERLEY) 1930, 88, 169

Calcium—continued:

- Blood serum, parathyroidectomy, diet and viosterol effect (SHELLING) 1932, 96, 215
- —, —, dietary calcium and phosphorus, effect (SHELLING) 1932, 96, 195
- —, phosphate, inorganic, and, relation (GREENWALD) 1931, 93, 551
- —, phosphorus, inorganic, and protein, influence (PETERS and EISENBERG) 1929, 84, 155
- —, pregnancy (MULL and KINNEY) 1933, 100, lxiii
- —, —, parturition, and puerperium, blood serum protein and inorganic phosphorus, relation (OBERST and PLASS) 1931, 92, xiii
- — protein and, relation (GREENWALD) 1931, 93, 551
- —, rickets, phosphorus administration, treatment, and spontaneous healing, effect (HAMILTON, KAJDI, and MEEKER) 1930, 88, 331
- —, ultrafiltrability, sodium citrate, acetate, and lactate effect (SHELLING and MASLOW) 1928, 78, 661
- —, vitamin B deficiency (SCHELLING) 1930, 89, 575
- —, women (MULL and BILL) 1932, 97, lxv
- —, women, cyclic variations (OKEY, STEWART, and GREENWOOD) 1930, 87, 91
- Body, food calcium, relation (SHERMAN and BOOHER) 1931, 93, 93

Calcium—continued:

Bone, determination (WASH-
BURN and SHEAR)

1932-33, 99, 21

Brain, rickets and tetany
(HESS, GROSS, WEINSTOCK,
and BERLINER)

1932, 98, 625

Cerebrospinal fluid (MORGULIS
and PERLEY) 1930, 88, 169

— — and blood serum, dis-
tribution between (MERRITT
and BAUER) 1931, 90, 215

— —, parathyroid activity
effect (MERRITT and BAUER)
1931, 90, 233

— —, — hormone, effect
(MORGULIS and PERLEY)
1930, 88, 169

Conservation, adult, vitamin D
and (KLETZIEN, TEMPLIN,
STEENBOCK, and THOMAS)

1932, 97, 265

(TEMPLIN and STEENBOCK)

1933, 100, 217

—, calcium-low diet, vitamin
D, adult, effect (TEMPLIN
and STEENBOCK)

1933, 100, 209

—, vitamin D relation (KLET-
ZIEN, THOMAS, TEMPLIN, and
STEENBOCK) 1931, 92, ix

Determination, alkalimetric ti-
tration (FISKE and LOGAN)

1931, 93, 211

Dietary, body calcium, relation
(SHERMAN and BOOHER)

1931, 93, 93

—, parathyroid extract re-
sponse, effect (MORGAN and
GARRISON) 1931, 92, xciv

Calcium—continued:

Dietary, parathyroidectomy,
tetany, blood serum calcium,
and food intake, effect
(SHELLING) 1932, 96, 195

—, variations, effect (HAAG
and PALMER) 1928, 76, 367

Diffusible, blood serum and
cerebrospinal fluid (GREEN-
BERG and BALLARD)

1928, 78, lxxv

Electrical transference, blood
serum protein solutions
(GREENBERG) 1928, 79, 177

Excretion, parathyroid hor-
mone injection effect, normal
and hypophysectomized rats
(PUGSLEY) 1933, 100, lxxxi

—, thyroid, desiccated, feeding
effect, normal and hypophy-
sectomized rats (PUGSLEY)

1933, 100, lxxxi

—, urine, children and infants
(STEARNS) 1932, 97, lxiii

Hypercalcemia, ergosterol, ir-
radiated, influence (JONES,
RAPOPORT, and HODES)

1930, 89, 647

—, —, —, intake relation
(JONES and RAPOPORT)

1931, 93, 153

—, —, —, source (HESS, BEN-
JAMIN, and GROSS)

1931-32, 94, 1

Hyperphosphatemia, ergos-
terol, irradiated, intake rela-
tion (JONES and RAPOPORT)

1931, 93, 153

-Increasing principle, blood
plasma, parathyroid gland,
reversible inactivation,
(TWEEDY and TORIGOE)

1932, 97, xlviii

Calcium—continued:

- Low diet, calcium conservation, vitamin D effect, adult (TEMPLIN and STEENBOCK) 1933, 100, 209
- Magnesium and, relations (ELMSLIE and STEENBOCK) 1929, 82, 611
- Metabolism (TURNER and HARTMAN) 1928, 78, xxvii
- , bone diseases, relation (STEARNS and BOYD) 1930, 87, xv, lvi
- , cod liver oil, milking cows, influence (HART, STEENBOCK, TEUT, and HUMPHREY) 1929, 84, 359
- , ergosterol, irradiated, effect (BROWN and SHOHL) 1930, 86, 245 (KERN, MONTGOMERY, and STILL) 1931, 93, 365
- , fluorine effect (MCCLURE and MITCHELL) 1931, 90, 297
- , hay, variously cured, milking cows, effect (HART, STEENBOCK, TEUT, and HUMPHREY) 1929, 84, 367
- , hypercalcuria (STEARNS and BOYD) 1930, 87, xv
- , hyperplastic thyroid, vitamin B and iodine influence (SANDBERG and HOLLY) 1932-33, 99, 547
- , hypocalcuria (STEARNS and BOYD) 1930, 87, lvi
- , lactation, diet reaction influence (GOSS and SCHMIDT) 1930, 86, 417
- , magnesium lactate effect (CARSWELL and WINTER) 1931, 93, 411

Calcium—continued:

- Metabolism, meat diet, prolonged (McCLELLAN, RUPP, and TOSCANI) 1930, 87, 669
- , non-rachitogenic diet (SHOHL, BENNETT, and WEED) 1928, 79, 257
- , pregnancy, diet reaction influence (GOSS and SCHMIDT) 1930, 86, 417
- , rickets (SHOHL and BENNETT) 1928, 76, 633
- , —, ergosterol, irradiated, alteration (BROWN and SHOHL) 1930, 86, 245
- , spleen relation (UNDERHILL and GROSS) 1929, 81, 163
- , yeast, irradiated, milking cows, effect (HART, STEENBOCK, KLINE, and HUMPHREY) 1930, 86, 145
- Microdetection (AMBERG and LANDSBURY) 1928, 78, xlvii
- Microdetermination (KIRK and SCHMIDT) 1929, 83, 311
- Milk as source (KRAMER, LATZKE, and SHAW) 1928, 79, 283
- , determination (SANDERS) 1931, 90, 747
- Muscle, parathyroid tetany (DIXON, DAVENPORT, and RANSON) 1929, 83, 737
- , striated, rickets (HAURY) 1930, 89, 467
- Phosphorus, and (SHELLING) 1932, 96, 195, 215, 229
- Phosphorus complex, filtrable, adsorbable, blood serum (BENJAMIN) 1933, 100, 57

Calcium—continued:

- Phosphorus levels, diet, rickets production (BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN) 1932, 98, 207
- ratio, dietary, growth, calcification, and blood, effect (BETHKE, KICK, and WILDER) 1932, 98, 389
- —, —, rickets production (SHOHL, BROWN, ROSE, and SAURWEIN) 1932, 97, x (BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN) 1932, 98, 207
- —, tibia, growing chick (HOLMES, PIGOTT, and CAMPBELL) 1931, 92, 187
- Precipitation, magnesium, phosphate, and sulfate presence (FISKE and LOGAN) 1931, 93, 211
- Raising principle, blood plasma, parathyroid gland, preparation and properties (TWEEDY) 1930, 88, 649
- —, — —, parathyroid gland, purification (TWEEDY and SMULLEN) 1931, 92, lv
- Retention, cereal influence (BURTON) 1929-30, 85, 405
- , crude fiber effect (BLOOM) 1930, 89, 221
- , fat diet (MALLON, JORDAN, and JOHNSON) 1930, 88, 163
- , pregnancy (COONS and BLUNT) 1930, 86, 1
- Soaps, absorption (BOYD, CRUM, and LYMAN) 1932, 95, 29
- Storage, growing children (HUNSCHER, COPE, NOLL, and MACY) 1933, 100, lv

Calcium—continued:

- Urine, determination (FISKE and LOGAN) 1931, 93, 211
- , microdetermination (HOFFMAN) 1931, 93, 787
- Utilization, calcium carbonate and citrate (RUSSELL and McDONALD) 1929, 84, 463
- , dietary fat, relation (BOYD, CRUM, and LYMAN) 1932, 95, 29
- , lactation (HUNSCHER) 1930, 86, 37 (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59 (DONELSON, NIMS, HUNSCHER, and MACY) 1931, 91, 675
- , —, cod liver oil and yeast supplements (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- , postlactation period (DONELSON, NIMS, HUNSCHER, and MACY) 1931, 91, 675
- , pregnancy (MACY, HUNSCHER, NIMS, and McCOSH) 1930, 86, 17
- Calcium carbonate: Calcium utilization of (RUSSELL and McDONALD) 1929, 84, 463
- Stomach contents, hydrogen ion concentration, effect (RUSSELL and McDONALD) 1930, 87, iv
- , protein evacuation, effect (RUSSELL and McDONALD) 1930, 87, iv
- Calcium citrate: Calcium utilization of (RUSSELL and McDONALD) 1929, 84, 463

Calcium citrate—continued:

-Like compound, blood (GREENBERG and GREENBERG)

1932, 97, ciii

1932-33, 99, 1

Properties (SHEAR and KRAMER) 1928, 79, 161

Stomach contents, hydrogen ion concentration, effect (RUSSELL and McDONALD)

1930, 87, iv

—, protein evacuation, effect (RUSSELL and McDONALD)

1930, 87, iv

Calcium hydroxide: Casein behavior in partial solution (PERTZOFF) 1928, 79, 799

Calcium ion: Blood serum binding (SHEAR and OFFNER)

1931, 91, 291

Chloride, acetate, lactate, and citrate ions, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF)

1929, 83, 721

Calcium salts: Blood serum calcium, diffusible and non-diffusible, injection effect (SMITH and STERNBERGER)

1932, 96, 245

Bone (BOGERT and HASTINGS)

1931-32, 94, 473

Ingestion effect (ROBINSON, HUFFMAN, and MASON)

1929, 84, 257

Calcium stearate: Solubility, bile solutions and water (LANGLEY, ROSENBAUM, and ROSENBAUM) 1932-33, 99, 271

Callicrein: Properties (BISCHOFF and ELLIOTT) 1933, 100, xvii

Calorie: Intake, children, Chinese, American-born (WANG and HAWKS) 1930, 87, v

Calorimeter: Oxy-, Benedict, elementary analysis, comparison (ADAMS, BOLLMAN, and BOOTHBY) 1932, 97, xci

Calorimetry: Animal (NORD and DEUEL) 1928, 80, 115

(GAEBLER) 1929, 81, 41

(CHAMBERS and LUSK)

1929-30, 85, 611

(DANN and CHAMBERS)

1930, 89, 675

(DANN, CHAMBERS, and LUSK)

1931-32, 94, 511

(CHAMBERS, KENNARD, POLLACK, and DANN)

1932, 97, 525

Carbon dioxide determination (McCLENDON, ANDERSON, STEGGERDA, CONKLIN, and WHITAKER) 1928, 77, 413

Clinical (McCLELLAN, BIASOTTI, and HANNON)

1928, 78, 719

(McCLELLAN, SPENCER, FALK, and DU BOIS)

1928, 80, 639

(McCLELLAN and TOSCANI)

1928, 80, 653

(McCLELLAN and DU BOIS)

1930, 87, 651

(McCLELLAN, RUPP, and TOSCANI) 1930, 87, 669

(McCLELLAN, SPENCER, and FALK) 1931, 93, 419

(McCLELLAN and HANNON)

1932, 95, 327

Oxygen determination (McCLENDON, ANDERSON, STEGGERDA, CONKLIN, and WHITAKER) 1928, 77, 413

Camel: Nitrogen excretion (SMITH and SILVETTE)

1928, 78, 409

- Cancer:** Blood plasma hydrogen ion concentration (BISCHOFF, LONG, and HILL) 1930, 87, liv
— reaction (MILLET) 1929, 82, 263
- Glandular extirpation effect** (BISCHOFF, MAXWELL, and ULLMANN) 1931, 92, lxxx
- Hormones** (BISCHOFF, MAXWELL, and ULLMANN) 1931, 92, lxxx
1932, 97, cii
- Caprin:** Tri-, metabolism (POWELL) 1932, 95, 43
- Caproic acid:** ϵ -Amino-, fate, phlorhizin effect (CORLEY) 1929, 81, 545
- ω -Hydroxy derivatives, fate, phlorhizin effect (CORLEY and MARVEL) 1929, 82, 77
- 2-Hydroxy-**, lactic acid and, configurational relationship (LEVENE and HALLER) 1928, 79, 475
- Caproin:** Tri-, body fat, ingestion influence (ECKSTEIN) 1929, 84, 353
- Caprylin:** Tri-, metabolism (POWELL) 1930, 89, 547
- Carbhemoglobin:** Blood (STADIE, SUNDERMAN, O'BRIEN, and WILLIAMS) 1932, 97, xcvii
—, carbon dioxide relation (STADIE and O'BRIEN) 1931, 92, xxvii
- Carbinol(s):** Ethylbenzyl-, carbinols, aliphatic, simple, configurational relationship (LEVENE and WALT) 1931-32, 94, 367
- Carbinol(s)—continued:**
Ethylbutyl-, lactic acid, configurational relationship (LEVENE and HALLER) 1929, 83, 579
- Ethylmethyl- and ethylpropyl-, configurational relationship (LEVENE and HALLER) 1928, 76, 415
- Isobutyl-, carbinols, aliphatic, simple, configurational relationship (LEVENE and WALTY) 1931-32, 94, 367
- Methylbenzyl-, hydrogenation (LEVENE and STEVENS) 1930, 89, 471
- Methylbutyl-, lactic acid, configurational relationship (LEVENE and HALLER) 1928, 79, 475
- Methylcyclohexyl-, and homologues, configurational relationship (LEVENE and MARKER) 1932, 97, 379
1932-33, 99, 321
- Methylhexyl-, and homologues, configurational relationship (LEVENE and MARKER) 1932, 97, 379
1932-33, 99, 321
- d*- and *l*-methyl-*n*-hexyl-, *d*-glucosides, emulsin hydrolysis (MITCHELL) 1929, 82, 727
- Methylphenyl-, and homologues, configurational relationship (LEVENE and MARKER) 1932, 97, 379
1932-33, 99, 321
- , hydrogenation (LEVENE and STEVENS) 1930, 89, 471

Carbinol(s)—continued:

- Methylpropyl-, 3-hydroxybutyric acid, configurational relationship (LEVENE and HALLER) 1929, 81, 425
- , lactic acid, configurational relationship (LEVENE and HALLER) 1929, 81, 703
- Phenylated, configurational relationships (LEVENE and STEVENS) 1930, 87, 375 (LEVENE and WALTJ) 1931, 90, 81
- , reduction (LEVENE and STEVENS) 1930, 89, 471
- Propylbutyl-, lactic acid, configurational relationship (LEVENE and HALLER) 1929, 83, 579
- Reactivity (LEVENE and ROTHEN) 1929, 81, 359
- Secondary, isopropyl and isobutyl series, configurations (LEVENE and MARKER) 1931, 90, 669
- Walden inversion (LEVENE and ROTHEN) 1929, 81, 359
- Carbohydrate(s):** Acid sulfate, *Macrocystis pyrifera* (NELSON and CRETCHER) 1931-32, 94, 147
- Almond, nature and biological availability (MORGAN, STRAUCH, and BLUME) 1929-30, 85, 385
- Balance, epinephrine and insulin effect (CORI and CORI) 1928, 78, lxii
- Digestibility coefficients, vitamin deficiency effect (ST. JULIAN and HELLER) 1931, 90, 99

Carbohydrate(s)—continued:

- Digestibility, gossypol effect (GALLUP and REDER) 1931-32, 94, 221
- Egg proteins, molecular size (LEVENE and ROTHEN) 1929, 84, 63
- Fat conversion to (DEUEL and MILHORAT) 1928, 78, 299
- Formation, new (CORI and CORI) 1928, 79, 309
- Hypercholesterolemia, fasting, administration effect (SHOFK) 1928, 80, 133
- Metabolism (HIMWICH, KOSKOFF, and NAHUM) 1929-30, 85, 571 (HIMWICH, CHAMBERS, KOSKOFF, and NAHUM) 1931, 90, 417 (FREUDENBERG) 1932-33, 99, 647 (FREUDENBERG and FELTON) 1932-33, 99, 657
- , adrenalectomy, blood plasma phosphates, relation (CORI and CORI) 1932, 97, lxxxv
- , adrenalinized fasting rat (LONG and BISCHOFF) 1932, 98, 85
- , blood plasma phosphates, relation (CORI and CORI) 1932, 97, lxxxv
- , diet factor (WESSON and MURRELL) 1933, 100, cii
- , fasting, epinephrine effect (CORI and CORI) 1928, 79, 309
- , muscle, autolyzing, normal, hyperthyroid, and adrenalectomized animals (BUELL and STRAUSS) 1932, 97, lxx

Carbohydrate(s)—continued:

Metabolism, postabsorptive state, epinephrine and insulin effect (CORI and CORI)

1928, 79, 321

—, sexual variation (BUTTS and DEUEL) 1933, 100, 415

—, vitamin deficiency effect (SURE and SMITH)

1929, 82, 307

1929, 84, 727

Milk, human, composition, supplementary feeding effect of (KLEINER and BELL)

1928, 78, xxv

Muscle (SAHYUN)

1931-32, 94, 253

—, cardiac, autolyzing, normal, thyroxinized, and adrenalectomized animals, changes (BUELL, STRAUSS, and ANDRUS)

1932, 98, 645

—, frog (SAHYUN)

1931-32, 94, 29

—, gastrocnemius, autolyzing, normal, thyroxinized, and adrenalectomized animals, changes (BUELL, STRAUSS, and ANDRUS)

1932, 98, 645

—, mammalian, anaerobiosis, effect (CORI) 1932, 96, 259

Ovomucoid (LEVENE and MORI)

1929, 84, 49

Oxidation, catalytic (DEGERING)

1932, 95, 409

Reduction values, Hagedorn-Jensen, Benedict-Myers, Folin-Wu methods (PUCHER and FINCH) 1928, 76, 331

-Related compounds, oxidation, catalytic (DEGERING)

1932, 95, 409

Carbohydrate(s)—continued:

Sea urchin egg, lactic acid and (PERLZWEIG and BARRON)

1928, 79, 19

Thymonucleic acid (LEVENE, MIKESKA, and MORI)

1929-30, 85, 785

Tolerance, meat diet effect (TOLSTOI) 1929, 83, 747

Total, muscle, adrenalin effect (BISCHOFF and LONG)

1932, 95, 743

—, —, mammalian, glycogen and (CORI and CORI)

1933, 100, 323

Tubercle bacillus culture medium, *d*-arabinose and *d*-mannose in (RENFREW)

1930, 89, 619

— —, ether-soluble lipids (ANDERSON and ROBERTS)

1930, 87, xvii

— — wax (ROBERTS and ANDERSON)

1931, 90, 33

Water retention, relationship (McCLENDON)

1930, 87, vii

Yeast, ergosterol content (MASSENGALE, BILLS, and PRICKETT)

1931-32, 94, 213

Carbon: Bacteria (HOPKINS, PETERSON, and FRED)

1929-30, 85, 21

Determination (FRIEDEMANN and KENDALL)

1929, 82, 45

Organic substances, microdetermination, manometric (VAN SLYKE, PAGE, and KIRK)

1933, 100, xciii

Carbon dioxide: Blood, absorption curve, temperature effect (EISENMAN)

1932-33, 99, 359

—, carbohemoglobin relation (STADIE and O'BRIEN)

1931, 92, xxvii

—, dissociation curve, oxygenated human (HENDERSON, BOCK, DILL, and EDWARDS)

1930, 87, 181

— plasma, calculated from whole blood, line charts (VAN SLYKE and SENDROY)

1928, 79, 781

— —, determination (SHOHL)

1929, 83, 759

— serum (EARLE and CULLEN)

1929, 83, 539

— —, determination (SHOHL)

1929, 83, 759

—, tension determination, manometric (VAN SLYKE, SENDROY, and LIU)

1932, 95, 547

—, —, measurement (FERGUSON)

1932, 95, 301

Bone powder, determination, Krogh-Rehberg apparatus (POWER and ADAMS)

1933, 100, lxxx

Compounds, hemoglobin solutions (HENRIQUES)

1931, 92, 1

Cottonseed oil and sodium bicarbonate solutions, distribution (HENDRIX and BERNARDONI)

1932, 97, xcv

Determination (FRIEDEMANN and KENDALL)

1929, 82, 45

—, indirect calorimetry, respiration apparatus (MCCLENDON, ANDERSON, STEG-

Carbon dioxide—continued:

GERDA, CONKLIN, and WHITAKER)

1928, 77, 413

Evolution, blood and buffer solutions (VAN SLYKE and HAWKINS)

1930, 87, 265

—, plant materials and hemi-celluloses, hydrochloric acid action (ANDERSON)

1931, 91, 559

Gas mixtures, determination by absorption (VAN SLYKE and SENDROY)

1932, 95, 509

— —, —, isolation method (VAN SLYKE, SENDROY, and LIU)

1932, 95, 531

Glucose fermentation, sugar disappearance and, comparison (HAWKINS and VAN SLYKE)

1929, 84, 243

Muscle, determination (FERGUSON and IRVING)

1929, 84, 143

—, dissociation curve, mammalian, living (IRVING, FOSTER, and FERGUSON)

1932, 95, 95

Reactions, buffer systems and blood (STADIE and O'BRIEN)

1933, 100, lxxxviii

Solubility, water, salt solution, blood serum and, blood cells (VAN SLYKE, SENDROY, HASTINGS, and NEILL)

1928, 78, 765

Urine water and chlorides, breathing high concentrations, effect (SIMPSON and WELLS)

1928, 76, 171

— —, breathing high concentrations, effect (SIMPSON)

1929, 84, 413

- Carbon monoxide:** Blood, detection (CHRISTMAN) 1932, 97, xcvi
 —, determination (PILAAR) 1929, 83, 43
 —, —, gasometric (SENDROY and LIU) 1930, 89, 133
 Gas mixtures, determination by absorption with blood (SENDROY) 1932, 95, 599
 Hemoglobin, spectrograph (BOOR and BACHEM) 1929-30, 85, 743
 —, systems containing, hydrogen ion activity determination, hydrogen electrode (STADIE and HAWES) 1928, 77, 241
- Carbonate:** Systems containing, hydrogen ion activity determination, hydrogen electrode (STADIE and HAWES) 1928, 77, 241
- Carbonic acid(s):** Dissociation constant, first, various solutions, varying ionic strength (STADIE and HAWES) 1928, 77, 265
 Substituted, with isobutyl and isoamyl groups, corresponding normal carbonic acids, configurational relationship (LEVENE and MARKER) 1932, 95, 1
 Systems containing, hydrogen ion activity determination, hydrogen electrode (STADIE and HAWES) 1928, 77, 241
- Carboxylic acids:** Optical rotations, homologous series (LEVENE and MARKER) 1932, 95, 153
- Carotenase:** (OLCOTT and McCANN) 1931-32, 94, 185
- Carotene:** Adsorption (HOLMES, LAVA, DELFS, and CASSIDY) 1932-33, 99, 417
 Blood, determination (CONNOR) 1928, 77, 619
 Dihydro-, hydrogenation (SMITH) 1932, 96, 35
 Hydrogenated derivatives, optical properties (SMITH) 1931, 90, 597
 Hydrogenation (SMITH) 1931, 90, 597
 1932, 96, 35
 Lettuce (OLCOVICH and MATTILL) 1931, 91, 105
 Linoleic acid oxidation, effect (MONAGHAN and SCHMITT) 1932, 96, 387
 Optical properties (SMITH) 1931, 90, 597
 Oxidation, fatty acids, volatile (SMITH and SPOEHR) 1930, 86, 755
 Oxygen equivalent determination (SMITH and SPOEHR) 1930, 86, 87
 Stability, fatty acids, ethyl esters, liver, and vegetable oils (McDONALD) 1933, 100, lxix
 Synthesis, bacterial (BAUMANN, STEENBOCK, and INGRAHAM) 1933, 100, xiii
 Tissues, determination (CONNOR) 1928, 77, 619
 Vitamin A source (KLINE, SCHULTZE, and HART) 1932, 97, 83
 — —, transformation *in vitro* (OLCOTT and McCANN) 1931-32, 94, 185

- Casein:** Alkali action (LEVENE and BASS) 1928, 78, 145
 Amino acids, basic, determination (CALVERY) 1929, 83, 631
 Bile salt metabolism effect (SMITH and WHIPPLE) 1930, 89, 689
 Biological value, heat effect (MORGAN) 1931, 90, 771
 Calcium hydroxide, partial solution, behavior (PERTZOFF) 1928, 79, 799
 Fractions, amino acid diet inadequacy, supplement (WINDUS, CATHERWOOD, and ROSE) 1931-32, 94, 173
 Milk, buffer action (WHITTIER) 1929, 83, 79
 Nitrous acid action (WILEY and LEWIS) 1930, 86, 511
 Peptic digest (JONES and GERSDORFF) 1933, 100, lviii
 Phosphorus (BERGGREN) 1932, 95, 451
 — determination, Fiske-Subbarow colorimetric method (BERGGREN) 1932, 95, 461
 Solubility, electrolyte effect (GREEN) 1931, 93, 517
 Trypsin action (VAHLTEICH) 1929, 82, 737
- Catabolism:** Endogenous, tissue, muscular work, effect (MITCHELL and KRUGER) 1928, 76, 55
- Catalase:** Destruction, hydrogen peroxide (MORGULIS) 1931, 92, 377
 Inactivation (MORGULIS) 1931, 92, 377
 —, heat, varying hydrogen ion concentration (MORGULIS and BEBER) 1928, 77, 115
- Catalase—continued:**
 Inactivation, ultra-violet radiation, different hydrogen ion concentrations (MORGULIS) 1930, 86, 75
 Temperature effect (MORGULIS and BEBER) 1928, 77, 115
- Catechol:** Onion scales, disease resistance, relation (LINK and WALKER) 1933, 100, 379
- Catharsis:** Fatty acids, volatile, lower, feces, effect (GROVE, OLMSTED, and KOENIG) 1929-30, 85, 127
- Cathode ray:** Ergosterol, irradiated, antirachitic potency (KNUDSON and MOORE) 1928, 78, xix
 1929, 81, 49
- Cell:** Blood. *See* Blood cell.
 Ethylene protection (NORD and FRANKE) 1928, 79, 27
 Methylene blue action, mechanism (BARRON) 1929, 81, 445
 Oxygen consumption, cyanide effect on dyes as catalyst (BARRON and HAMBURGER) 1932, 96, 299
 Permeability, ethylene action (NORD and FRANKE) 1928, 79, 27
- Cellobionic acid:** Lactone formation of, cellobiose structure, relation (LEVENE and WOLFROM) 1928, 77, 671
- Cellobiose:** Chemical constitution (LEVENE and WOLFROM) 1928, 77, 671
- Central nervous system:** Lipids, formalin fixation, influence (WEIL) 1929, 83, 601

- Cephalin:** Blood, determination, oxidative (BLOOR) 1929, 82, 273
 Rennin coagulation, milk (STONE and ALSBERG) 1928, 78, 557
 Tissue, determination, oxidative (BLOOR) 1929, 82, 273
- Cereal:** Calcium retention, influence (BURTON) 1929-30, 85, 405
 Growth effect (ROSE and McCOLLUM) 1928, 78, 535
 Lactation effect (ROSE and McCOLLUM) 1928, 78, 535
 Phosphorus retention, influence (BURTON) 1929-30, 85, 405
 Proteins, biological value, heat effect (MORGAN) 1931, 90, 771
 Reproduction effect (ROSE and McCOLLUM) 1928, 78, 535
 Rickets and (STEENBOCK, BLACK, and THOMAS) 1929-30, 85, 585
- Cerebronic acid:** (LEVENE and TAYLOR) 1928, 80, 227
 Fraction (TAYLOR and LEVENE) 1929, 84, 23
- Cerebrospinal fluid:** Alcoholic intoxication determination by analysis of (GETTLER and FREIREICH) 1931, 92, 199
 Bicarbonate, blood plasma and, comparison (MUNTWYLER, WAY, and POMERENE) 1931, 92, 733
 Blood plasma and, equilibrium between (MERRITT and BAUER) 1931, 90, 215, 233 (DAILEY) 1931, 93, 5
 Calcium (MORGULIS and PERLEY) 1930, 88, 169
- Cerebrospinal fluid—continued:**
 Calcium, blood serum and, distribution (MERRITT and BAUER) 1931, 90, 215
 —, diffusible, blood serum and, comparison (GREENBERG and BALLARD) 1928, 78, lxxv
 —, parathyroid activity effect (MERRITT and BAUER) 1931, 90, 233
 —, — hormone, effect (MORGULIS and PERLEY) 1930, 88, 169
 Chloride, blood plasma and, comparison (MUNTWYLER, WAY, and POMERENE) 1931, 92, 733
 Phosphates, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii
 Phosphorus distribution, blood serum and (MERRITT and BAUER) 1931, 90, 215
 Reducing substances, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii
 Sodium, blood serum and, distribution (DAILEY) 1931, 93, 5
- Cerevisterol:** (HONEYWELL and BILLS) 1932, 97, xxxix 1932-33, 99, 71
- Ch'an su:** (JENSEN and CHEN) 1930, 87, 741
 Chemical composition (JENSEN and CHEN) 1929, 82, 397
 Epinephrine isolation from (JENSEN and CHEN) 1929, 82, 397
- Charcoal:** Insulin adsorption (JENSEN and DE LAWDER) 1930, 87, 701

Chelonia: Body fluids, inorganic composition (SMITH)

1929, 82, 651

Chemical constitution: Optical activity, relationship (LEVENE and HALLER)

1928, 79, 475

— rotation and (LEVENE and MARKER)

1931, 93, 749

1932, 97, 563

(LEVENE, MARKER, and ROTHEN)

1933, 100, 589

Organic compounds, esterase and lipase, relation (GLICK)

1932, 97, lxvii

Physiological response, relation (QUICK)

1932, 96, 83

1932, 97, 403

1932, 98, 157

Children: Chinese, American-born, basal metabolism and calorie and protein intake (WANG and HAWKS)

1930, 87, v

Growing, calcium and phosphorus storage (HUNSCHER, COPE, NOLL, and MACY)

1933, 100, lv

Mineral balances, successive (HUNSCHER, COPE, NOLL, MACY, COOLEY, PENBERTHY, and ARMSTRONG)

1932, 97, lxiv

Muscle dystrophy, pseudohypertrophic, glycine and creatine administration effect (CHANUTIN, BUTT, and ROYSTER)

1933, 100, xxvi

Non-nephritic, blood serum calcium, protein, and phosphorus, inorganic, non-relationship (STEARNS and KNOWLTON)

1931, 92, xii, 639

Children—continued:

Urine calcium, excretion (STEARNS) 1932, 97, lxiii

Chloride(s): Blood, determination (WILSON and BALL)

1928, 79, 221

(LEWIS and BINKLEY)

1930, 87, xxiii

—, —, electrometric (FORBES and IRVING) 1929, 83, 387

—, —, Van Slyke method (EISENMAN) 1929, 82, 411

—, distribution (HASTINGS and VAN DYKE) 1928, 78, xxxv (MUNTWYLER, ROSE, and MYERS)

1931, 92, xc

(MUNTWYLER, MYERS, and WAY) 1931, 92, 721

—, —, normal and pathological (HASTINGS, SENDROY, McINTOSH, and VAN SLYKE)

1928, 79, 193

—, —, sodium bromide ingestion effect (VAN DYKE and HASTINGS) 1931, 92, 27

—, drying effect (SUNDERMAN and WILLIAMS)

1931, 92, 99

(SUNDERMAN)

1931, 92, lxxi

—, glucose ingestion effect (MOSENTHAL and BRUGER)

1932, 97, lxxxiii

—, *in vitro*, distribution (HASTINGS and VAN DYKE)

1931, 92, 13

—, *Limulus polyphemus*, sea water, and distribution between, hemocyanin influence (THOMAS) 1929, 83, 71

— plasma and ascitic fluid, comparison (MUNTWYLER, WAY, and POMERENE)

1931, 92, 733

Chloride(s)—continued:

- Blood plasma and cells, distribution between (MUNTWYLER, ROSE, and MYERS)
1931, 92, xc
(MUNTWYLER, MYERS, and WAY) 1931, 92, 721
— — — cerebrospinal fluid, comparison (MUNTWYLER, WAY, and POMERENE)
1931, 92, 733
— serum, determination (WILSON and BALL)
1928, 78, p. 1
(WILSON and BALL)
1928, 79, 221
Excretion, achlorhydria (HUBBARD) 1930, 88, 361
—, respiratory rate effect (HUBBARD and ALLISON)
1930, 89, 627
Microdetermination (FAIRHALL and HEIM)
1932, 97, xciii
Tissue, animal, determination, electrometric (FORBES and IRVING) 1929, 83, 337
—, determination (SUNDERMAN) 1933, 100, xci
—, —, Van Slyke method (EISENMAN) 1929, 82, 411
—, drying effect (SUNDERMAN and WILLIAMS)
1931, 92, 99
(SUNDERMAN)
1931, 92, lxxi
Urine, carbon dioxide breathing, high concentrations, effect (SIMPSON and WELLS)
1928, 76, 171
—, glomerulus, frog (FREEMAN, LIVINGSTON, and RICHARDS)
1930, 87, 467

Chloride(s)—continued:

- Urine, overbreathing effect (SIMPSON and WELLS)
1928, 76, 171
Chloride ion: Calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF)
1929, 83, 721
Chlorine: Gastric juice (HOLLANDER) 1932, 97, 585
Chloroaliphatic acids: Hydroxyaliphatic acids, 2-, 3-, 4-substituted, configurational correlation (LEVENE and HALLER) 1929, 83, 591
3-Chlorobutyric acid: 3-Hydroxybutyric acid, configurational relationship (LEVENE and HALLER) 1929, 81, 425
Chloroform: Blood cholesterol, effect (GRAY) 1930, 87, 591
Chloropropionic acid: Chlorosuccinic acid, configurational relationship (LEVENE and HALLER) 1929, 83, 185
2-Chloropropionic acid: Lactic acid, configurational relationship (LEVENE and HALLER)
1929, 81, 703
Chlorosuccinic acid: Chloropropionic and lactic acids, configurational relationship (LEVENE and HALLER)
1929, 83, 185
Cholesterol: Absorption spectrum (KOCH, KOCH, and LEMON) 1929-30, 85, 159
Adsorption (HOLMES, LAVA, DELFS, and CASSIDY)
1932-33, 99, 417
Bile salt solutions, behavior (SPANNER and BAUMAN)
1932, 98, 181

Cholesterol—continued:

- Biochemical study (BILLS, HONEYWELL, and MACNAIR) 1928, 76, 251
- Blood, chloroform, paraldehyde, and urethane effect (GRAY) 1930, 87, 591
- , cyclic variations, women, dietary sterol, effect (OKEY and STEWART) 1932, 97, xxxix
- , determination (LING) 1928, 76, 361
- , diet relation, women (OKEY and STEWART) 1932-33, 99, 717
- , diurnal variation (BRUGER and SOMACH) 1932, 97, 23
- , lactation cycle (MAYNARD, HARRISON, and MCCAY) 1931, 92, 263
- serum, age effect (SHOPE) 1928, 80, 141
- —, beef tissue feeding (MULLER) 1929, 84, 345
- Derivatives (SHRINER and KO) 1928, 80, 1
- Destruction, animal organism (PAGE and MENSCHICK) 1932, 97, 359
- Determination, Okey method, simplified (TURNER) 1931, 92, xci, 495
- Esterase, animal tissues (SHOPE) 1928, 80, 127
- Growth influence (SINCLAIR) 1930, 88, 575
- Heat of combustion (BILLS, COX, and STEEL) 1929, 84, 655
- Iodine values, abnormal (RALLS) 1932, 97, xxxviii

Cholesterol—continued:

- Metabolism, ovary and testis, relation (RANDLES and KNUDSON) 1929, 82, 57
- , suprarenal gland and spleen, relation (RANDLES and KNUDSON) 1928, 76, 89
- Microdetermination (OKEY) 1930, 87, xxi
- (YASUDA) 1931, 92, 303
- Rich diet, tissue lipids, effect (OKEY) 1933, 100, lxxv
- Saponification effect (OKEY) 1930, 87, xxi
- Spectroscopic study (BILLS, HONEYWELL, and MACNAIR) 1928, 76, 251
- Cholesterol ester: Blood serum and plasma (SHOPE) 1928, 80, 125
- Cholic acid: Bile, determination (REINHOLD and WILSON) 1932, 96, 637
- Choline: Blood sugar, influence (UNDERHILL and PETRELLI) 1929, 81, 159
- Choroid: Vitamin A (SMITH, YUDKIN, KRISS, and ZIMMERMAN) 1931, 92, xcii
- Chromoproteins: Chemistry (LEVENE and SCHORMÜLLER) 1931, 93, 571
- Cinnamic acid: Benzoylamino-, derivatives, mercaptan addition (NICOLET) 1932, 95, 389
- Citrate ion: Calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 1929, 83, 721

- Citric acid:** Determination, citric acid enzyme, cucumber seeds (ADAMS) 1931, 92, lxxiv
 Enzyme, cucumber seeds, citric acid determination (ADAMS) 1931, 92, lxxiv
 Metabolism (KUYPER and MATTILL) 1933, 100, lxi
- Clostridium acetobutylicum:** Maize fermentation, acids in (STILES, PETERSON, and FRED) 1929, 84, 437
 Methylglyoxal formation (PETT and WYNNE) 1932, 97, 177
- Clotting:** Blood plasma, interfacial adsorption factor (JOHLIN) 1929, 81, 99
- Cobalt:-Cysteine complex, oxidized** (MICHAELIS and YAMAGUCHI) 1929, 83, 367
 -Cysteine-hydrogen peroxide complex (SOBEL and KRAMER) 1932, 97, lxxxix
 Microdetermination, colorimetric (MICHAELIS and YAMAGUCHI) 1929, 83, 367
 Nutrition (STARE and ELVEHEIM) 1932-33, 99, 473
 Polycythemia, blood volume (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932-33, 99, 457
 —, manganese effect (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932-33, 99, 465
 —, milk-iron-copper diet, supplement (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932, 96, 11
- Cobaltous cysteine:** Oxidation (KENDALL and HOLST) 1931, 91, 435
- Cock:** Sebright, hen-feathering (GALLAGHER, DOMM, and KOCH) 1933, 100, xlvii
- Cocoon:** Tyrosine (SILBERMAN and LEWIS) 1932, 95, 491
- Cod:** Liver, sex variations (HAWK) 1930, 87, xlviii
- Cod liver oil:** Biological assay (ADAMS and MCCOLLUM) 1928, 78, 495
- Calcium assimilation** (GREENWALD and GROSS) 1929, 82, 505
 — balance, effect (HART, TOURTELLOTTE, and HEYL) 1928, 76, 143
 — metabolism, milking cows (HART, STEENBOCK, TEUT, and HUMPHREY) 1929, 84, 359
 — utilization, lactation, supplement (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- Dilution curve, antimony trichloride** (NORRIS and CHURCH) 1930, 87, 139
- Nitrogen utilization, lactation, supplement** (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- Nursing young, requirements** (SURE) 1928, 76, 659
- Phosphorus utilization, lactation, supplement** (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- Sex variations** (HAWK) 1930, 87, xlviii
- Tetany prevention, parathyroidectomy** (GREENWALD and GROSS) 1929, 82, 505

Cod liver oil—continued:

Tetany prevention, thyropara-
thyroidectomy, effect
(GREENWALD and GROSS)

1928, 78, lxviii

Vitamin fraction, separation
(MARCUS) 1928, 80, 9

Coffee-bean: Chemistry (BEN-
GIS and ANDERSON)

1932, 97, 99

Coffee-bean oil: Kahweol from,
properties (BENGIS and AN-
DERSON) 1932, 97, 99

Unsaponifiable matter (BEN-
GIS and ANDERSON)

1932, 97, 99

Collagen: Integument, chemis-
try (MORSE) 1932, 97, xxx

Collodion: Quinhydrone-, elec-
trode (BUGHER)

1931, 92, 513

Colloid: Adsorption, interfacial,
concentration of solutions
(JOHLIN) 1929, 84, 543

Biological, bound water
(GREENBERG) 1932, 97, xlv

Blood serum, osmotic pressure,
determination (TURNER)

1932, 96, 487

Osmotic pressure determina-
tion (HILL)

1932-33, 99, 323

Colon: Bacteria and *aerogenes*,
trehalose fermentation (POE
and FIELD)

1932-33, 99, 283

—, sugars, rare, fermentation
(POE and FIELD)

1932-33, 99, 283

Colon bacillus: Blood non-glu-
cose reducing substances, ac-
tion (HUBBARD and DEE-
GAN) 1930, 86, 575

Colon bacillus—continued:

Proteins and lipids, synthesis
by (ECKSTEIN and SOULE)
1931, 91, 395

Comb: Growth-stimulating male
hormone, alkali effect (GAL-
LAGHER and KOCH)

1933, 100, xlvii

Condensation: Polymerization
and (LEVENE and WALT)

1928, 77, 685

1928, 78, 23

1928, 79, 363

1929, 84, 39

1930, 88, 771

1931-32, 94, 353

Conductance cell: Micro-
(WHITE) 1932-33, 99, 445

Conductivity assembly: Biologi-
cal fluids (SUNDERMAN)

1930, 88, 61

Copper: Alanine complexes
(BORSOOK and THIMANN)

1932, 98, 671

Anemia, milk- and iron-pro-
duced, relation (WADDELL,
STEENBOCK, ELVEHJEM, and
HART) 1929, 83, 251

—, nutritional, iron supple-
mented by (WADDELL,
STEENBOCK, and HART)

1929, 84, 115

(UNDERHILL, ORTEN, and
LEWIS) 1931, 91, 13

—, —, supplement variations
(MITCHELL and MILLER)

1931, 92, 421

Biological material, determina-
tion (ELVEHJEM and LINDOW)

1929, 81, 435

Blood, distribution (ELVE-
HJEM, STEENBOCK, and HART)

1929, 83, 21

Copper—continued:

- Blood hemoglobin, relation (McHARGUE, HEALY, and HILL) 1928, 78, 637
- Combining ratio, hemocyanin (REDFIELD, COOLIDGE, and MONTGOMERY) 1928, 76, 197
- Determination, Biazzo method, Drabkin-Waggoner modification (ELVEHJEM and HART) 1931, 91, 37
- , ethyl xanthate and Biazzo methods, modified (DRABKIN and WAGGONER) 1930, 89, 51
- Egg, diet effect (ELVEHJEM, KEMMERER, HART, and HALPIN) 1929-30, 85, 89
- yolk (ERIKSON, BOYDEN, MARTIN, and INSKO) 1933, 100, xl
- Feedingstuff (ELVEHJEM and HART) 1929, 82, 473
- Food (LINDOW, ELVEHJEM, and PETERSON) 1929, 82, 465
- Glutathione, crystalline, oxidation, effect (VOEGTLIN, JOHNSON, and ROSENTHAL) 1931, 93, 435
- Glycine complexes (BORSOOK and THIMANN) 1932, 98, 671
- Hemocyanin, *Limulus polyphemus* (REDFIELD, COOLIDGE, and SHOTTS) 1928, 76, 185
- Hemoglobin building influence (TITUS and HUGHES) 1929, 83, 463
- —, iron supplement (HART, STEENBOCK, WADDELL, and ELVEHJEM) 1928, 77, 797

Copper—continued:

- Hemoglobin formation, iron supplement (ELVEHJEM and HART) 1932, 95, 363
- molecule constituent (ELVEHJEM, STEENBOCK, and HART) 1929, 83, 21
- regeneration, rôle (KEIL and NELSON) 1931, 93, 49
- synthesis, relation (ELVEHJEM and HART) 1929, 84, 131
- Iodometric reagents, sugar determination (SHAFFER and SOMOGYI) 1933, 100, 695
- Iron metabolism, action (ELVEHJEM) 1932, 97, xvi (ELVEHJEM and SHEERMAN) 1932, 98, 309
- —, influence (JOSEPHS) 1932, 96, 559
- Liver and liver extracts (MEYER and EGGERT) 1932-33, 99, 265
- , infant (MORRISON and NASH) 1930, 87, xl 1930, 88, 479
- Manganese-iron complex, hemoglobin building (TITUS, CAVE, and HUGHES) 1928, 80, 565
- Metabolism (LINDOW, PETERSON, and STEENBOCK) 1929, 84, 419
- Milk (QUAM and HELLWIG) 1928, 78, 681
- , diet effect (ELVEHJEM, STEENBOCK, and HART) 1929, 83, 27
- Milk-iron diet, effect (UNDERHILL, ORTEN, MUGRAGE, and LEWIS) 1932-33, 99, 469

Copper—continued:

- Milk-iron diet, polycythemia, cobalt supplement (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932, 96, 11
- Physiology (FLINN and INOUE) 1929, 84, 101
- Reproduction, rôle (KEIL and NELSON) 1931, 93, 49
- Reticulocyte response, anemia, effect (ELVEHJEM and SCHULTZE) 1933, 100, xxxix
- Storage, body (TITUS and HUGHES) 1929, 83, 463
- Urine, normal (RABINOWITZ) 1933, 100, 479
- Vitamin B supplement, lactation (SURE) 1928, 80, 289
- Yeast growth and metabolism, rôle (ELVEHJEM) 1931, 90, 111
- Copper ion:** Resorption, coagulated proteins (HENDRIX) 1928, 78, 653
- Copper salts:** Blood deproteinization (SOMOGYI) 1931, 90, 725
 - Hemoglobin output, effect (ELDEN, SPERRY, ROBSCHT-ROBBINS, and WHIPPLE) 1928, 79, 577
- Copper sulfate:** Lipase, influence (PARFENTJEV, DEVRIENT, and SOKOLOFF) 1931, 92, 33
- Coprophagy:** Nutrition factor (KENNEDY and PALMER) 1928, 76, 607
 - Vitamins B and G assay, influence (GUERRANT and DUTCHER) 1932, 98, 225
- Coral:** Gorgonian, iodine (SUGIMOTO) 1928, 76, 723

- Corn:** Amino acid deficiency, growth effect (MITCHELL and SMUTS) 1932, 95, 263
- Glutelins (JONES and CSONKA) 1928, 78, 289
- Rickets, irradiation and mineral supplements, effect (STEENBOCK, BLACK, and THOMAS) 1929-30, 85, 585
- Vitamin B complex (HUNT) 1928, 78, 83

See also Maize.

- Corn-meal:** Protein, body weight, tryptophane supplement, effect (CARY and HUFNAGEL) 1932, 97, xxxii
- Corpus luteum:** Lipid (BLOOR, OKBY, and CORNER) 1930, 86, 291
- Corpuscle:** Blood. *See* Blood cell.
- Corynebacterium:** Vitamin A production (SKINNER and GUNDERSON) 1932, 97, 53
- Cottonseed:** Hulls, hemicellulose (ANDERSON and KINSMAN) 1931-32, 94, 39
- Meal, diet effect (GALLUP) 1931, 91, 387
- Proteins, digestibility (GALLUP) 1928, 76, 43
- Toxicity (NELSON and JONES) 1930, 87, xlvii
- Cottonseed oil:** Fat, body, ingestion effect (ELLIS) 1931, 92, xxxv
 - (ELLIS, ROTHWELL, and POOL) 1931, 92, 385
- Cozymase:** Phosphatase activity, relation (RAYMOND) 1928, 79, 637
- Cranberry:** Iodine (MORSE) 1928, 79, 409

Cranberry—continued:

Mineral constituents (MORSE)
1929, 81, 77

Creatine: Administration effect
(PEABODY and HILL)

1929, 82, 687

Blood, creatine feeding influence (CHANUTIN and SILVETTE) 1928, 80, 589

—, fasting influence (CHANUTIN and SILVETTE)

1928, 80, 589

— sugar, effect (HILL)

1928, 78, iv

(HILL and MATTISON)

1929, 82, 679

Body, creatine ingestion effect (CHANUTIN) 1930, 87, viii

—, diet effect (CHANUTIN)

1930, 89, 765

—, fasting effect (CHANUTIN)

1930, 87, viii

(CHANUTIN and SHEARER)

1931, 91, 475

—, nephrectomy effect (CHANUTIN) 1930, 89, 765

— nitrogen, ingestion effect (CHANUTIN) 1930, 87, viii

-Creatinine conversion, protein metabolism influence (BOLLMAN) 1929-30, 85, 169

— excretion, arginine feeding effect (HYDE and ROSE)

1929, 84, 535

— metabolism, proteins and amino acids, effect (BEARD and BARNES)

1931-32, 94, 49

Creatinine, transformation (ROSE, ELLIS, and HELMING) 1928, 77, 171

Excretion, fasting (MORGULIS)

1929, 83, 299

Creatine—continued:

Growth effect (CHANUTIN and BEARD) 1928, 78, 167

Liver (CHANUTIN and BEARD) 1928, 78, 167

Metabolism, myositis fibrosa (BODANSKY, SCHWAB, and BRINDLEY) 1929-30, 85, 307

—, — ossificans (BODANSKY and SCHWAB) 1930, 87, x

—, nephrectomy (CHANUTIN and SILVETTE)

1929-30, 85, 179

Muscle (CHANUTIN and BEARD) 1928, 78, 167

(BODANSKY) 1931, 91, 147

—, creatinine coefficient, relationship (CHANUTIN and KINARD) 1932-33, 99, 125

— dystrophy, pseudohypertrophic, effect (CHANUTIN, BUTT, and ROYSTER)

1933, 100, xxvi

—, fasting effect (CHANUTIN and SHEARER)

1931, 91, 475

—, fish (HUNTER)

1929, 81, 513

—, muscle dystrophy, nutritional (GOETTSCH and BROWN) 1932, 97, 549

Origin (BRAND, HARRIS, SANDBERG, and LASKER)

1930, 87, ix

(BRAND and HARRIS)

1931, 92, lix

Tissue, creatine feeding influence (CHANUTIN and SILVETTE) 1928, 80, 589

—, fasting influence (CHANUTIN and SILVETTE)

1928, 80, 589

Creatinine: Blood (GAEBLER)

1930, 89, 451

—, nature (GAEBLER and
KELTCH) 1928, 76, 337Coefficient, muscle creatine, re-
lationship (CHANUTIN and
KINARD) 1932-33, 99, 125Compound, picric acid, sodium
hydroxide, and (GREEN-
WALD) 1928, 77, 539Creatine-, conversion, protein
metabolism influence (BOLL-
MAN) 1929-30, 85, 169—, excretion, arginine feeding
effect (HYDE and ROSE)
1929, 84, 535—, metabolism, protein, and
amino acids, effect (BEARD
and BARNES)
1931-32, 94, 49—, transformation (ROSE, EL-
LIS, and HELMING)
1928, 77, 171Determination, Pulfrich photo-
meter (KASSELL)
1933, 100, lviiiExcretion, fasting (MORGULIS)
1929, 83, 299Jaffe -reaction, chemistry
(GREENWALD)
1928, 77, 539

1928, 80, 103

1930, 86, 333

Muscle, microdetermination
(OCHOA and VALDECASAS)
1929, 81, 351Picric acid compound with
(GREENWALD)
1930, 86, 333Preparation (GREENWALD)
1929, 81, 73Protein metabolism influence,
creatine conversion to (BOLL-
MAN) 1929-30, 85, 169**Creatinine—continued:**Red compound, isolation
(GREENWALD) 1928, 80, 103**Crocodile: Blood**, physicochemi-
cal properties (DILL and
EDWARDS) 1931, 90, 515**Crotalus atrox:** *See* Rattlesnake.**Crotalus oregonus:** *See* Rattle-
snake.**Crude fiber:** Calcium and phos-
phorus retention, effect
(BLOOM) 1930, 89, 221**Cucumber:** Seeds, citric acid en-
zyme, citric acid determina-
tion (ADAMS) 1931, 92, lxxiv**Cunner:** Muscle, dehydrogenases
(COLLETT) 1928, 78, 685**Cyanhemoglobin:** Solutions, bi-
carbonate ion activity co-
efficient (STADIE and HAWES)
1928, 77, 265—, carbonic acid dissociation
constant, apparent, first
(STADIE and HAWES)
1928, 77, 265**Cyanide(s):** Blood cell, red, res-
piration acceleration (WEN-
DEL) 1931, 92, xlviiCellular oxygen consumption,
dyes as catalyst (BARRON
and HAMBURGER)
1932, 96, 355Cysteine oxidation, action
(GERWE) 1931, 92, 525Dialuric acid oxidation, spon-
taneous, effect (HILL)
1931, 92, 471Kidney respiration, effect
(MUNTWYLER and BINNS)
1932, 97, lxxviiiLiver respiration, effect
(MUNTWYLER and BINNS)

Cyanide(s)—continued:

- Metabolism, thyroid gland and (BAUMANN, SPRINSON, and METZGER) 1933, 100, xiii
- Poisoning, methylene blue and sodium nitrite, action (WENDEL) 1933, 100, c
- Sugar oxidation, alkaline solution (HARNED and DEERE) 1932, 97, lxxxii

Cymarín: Allo- (JACOBS)

- 1930, 88, 519
- Isomerization, enzyme (JACOBS) 1930, 88, 519
- Periplo- (JACOBS and HOFFMANN) 1928, 79, 519
- Sarmiento- (JACOBS and HEIDELBERGER) 1929, 81, 765
- , sugar (JACOBS and BIGELOW) 1932, 96, 355

Cysteic acid: Glycyl-, synthesis (WHITE) 1933, 100, civ

- Phenylhydantoin, preparation and properties (ANDREWS and ANDREWS) 1933, 100, vi

Cysteine: Alkali action (CLARKE and INOUE) 1930, 89, 399

- Arsenic derivatives (JOHNSON and VOEGTLIN) 1930, 89, 27
- Autoxidation, iron-free (GERWE) 1931, 92, 399
- o*-Benzoquinone test (HESS and SULLIVAN) 1932-33, 99, 95
- Cobalt-hydrogen peroxide complex (SOBEL and KRAMER) 1932, 97, lxxxix
- Cobalt, oxidized, complex (MICHAELIS and YAMAGUCHI) 1929, 83, 367
- Cobaltous, oxidation (KENDALL and HOLST) 1931, 91, 435

- Color test (DYER and BAUDISCH) 1932, 95, 483

Cysteine—continued:

- Complexes, iron group (MICHAELIS and BARRON) 1929, 83, 191
- Derivatives, deamination, alkaline (CLARKE and INOUE) 1931-32, 94, 541
- , sulfur lability (NICOLET) 1932, 95, 389
- Determination (DOWLER) 1928, 78, xxxviii
- , gasometric (BAERNSTEIN) 1930, 89, 125
- (HESS) 1933, 100, liv
- Egg, developing (CALVERY) 1930, 87, 691
- Insulin, crystalline, inactivation (DU VIGNEAUD, FITCH, PEKAREK, and LOCKWOOD) 1931-32, 94, 233
- Mercury derivatives (ANDREWS and WYMAN) 1930, 87, 427
- Oxidation, cyanides and cystine, action (GERWE) 1931, 92, 525
- , iron, catalytic effect (MICHAELIS) 1929, 84, 777
- , spontaneous (GERWE) 1931, 91, 57
- 1931, 92, 399, 525
- Oxidizing power (KENDALL) 1928, 78, xl
- Potential, mercury electrode, mechanism (BARRON, FLEXNER, and MICHAELIS) 1929, 81, 743
- o*-Quinone test (BAUDISCH and DYER) 1932-33, 99, 485
- Reducing power (KENDALL) 1928, 78, xl
- Reduction, free metals, effect (MICHAELIS and BARRON) 1929, 81, 29

Cysteine—continued:

- Reduction potential (MICHAELIS and FLEXNER)
1928, 79, 689
- Sulfur lability (NICOLET)
1932, 95, 389
- Thiohydantoin (NICOLET)
1930, 88, 395
- derivatives, alkaline action
(NICOLET) 1930, 88, 403
- Cysteine cuprous mercaptide:**
Cystine determination
(VICKERY and WHITE)
1932-33, 99, 701
- Cysteine hydrochloride:** Iron-free preparation (GERWE)
1931, 91, 57
- Cystine:** Absorption, gastrointestinal, rate (WILSON)
1930, 87, 175
- spectrum (FOSTER, ANSLOW, and BARNÉS)
1930, 89, 665
- Alkali action (GORTNER and SINCLAIR) 1929, 83, 681
(CLARKE and INOUE)
1930, 89, 399
(THOR and GORTNER)
1932-33, 99, 383
- Arthritis (SULLIVAN and HESS)
1932, 97, xxv
- Blood, determination (HARDING and CARY)
1928, 78, xlix
- serum proteins (TUCHMAN and REINER)
1933, 100, 775
(REINER and SOBOTKA)
1933, 100, 779
- Chemical properties (FOSTER, ANSLOW, and BARNÉS)
1930, 89, 665

Cystine—continued:

- Complex, urine (BRAND, HARRIS, and BILOON)
1930, 86, 315
- Cysteine oxidation, action
(GERWE) 1931, 92, 525
- Deamination (ANDREWS)
1928, 78, lxiii
1930, 87, 681
- Decomposition, acid solution
(ANDREWS) 1932, 97, xix
- , alkaline (ANDREWS)
1928, 80, 191
- Deficient diet, disulfide acids, supplement (WESTERMAN and ROSE) 1928, 79, 413
- —, hair growth, relation
(BEADLES, BRAMAN, and MITCHELL) 1930, 88, 623
- —, methionine supplement
(JACKSON and BLOCK)
1932, 98, 465
- —, production (WHITE and JACKSON) 1933, 100, ciii
- —, thiopyruvic acid derivatives (BLOCK and JACKSON)
1931, 92, xci
- Determination (DOWLER)
1928, 78, xxxviii
(VICKERY and WHITE)
1932, 97, xviii
- , cysteine cuprous mercaptide (VICKERY and WHITE)
1932-33, 99, 701
- , gasometric (BAERNSTEIN)
1930, 89, 125
(HESS) 1933, 100, liv
- Dietary, hair cystine, relation
(SMUTS, MITCHELL, and HAMILTON) 1932, 95, 283

Cystine—continued:

- Dietary, hair growth, relation
(LIGHTBODY and LEWIS) 1929, 82, 485
(SMUTS, MITCHELL, and HAMILTON) 1932, 95, 283
- Egg, developing (CALVERY) 1930, 87, 691
- Glutelins (CSONKA) 1932, 97, 281
- Hair, dietary cystine, relation
(SMUTS, MITCHELL, and HAMILTON) 1932, 95, 283
- Histidine, separation (VICKERY and LEAVENWORTH) 1929, 83, 523
- Homologue, methionine decomposition with sulfuric acid, formation (BUTZ and DU VIGNEAUD) 1932-33, 99, 135
- Mercuric salts action (SIMONSEN) 1931-32, 94, 323
- Meso-, isolation and characterization (LORING and DU VIGNEAUD) 1932, 97, xxiv
- Metabolism (JACKSON and BLOCK) 1932, 97, cvi
1932, 98, 465
- Nephropathogenic action
(COX, SMYTHE, and FISHBACK) 1929, 82, 95
- Oxidation (TOENNIES and LAVINE) 1933, 100, 463
- , acid solution (ANDREWS) 1932, 97, 657
1933, 100, iv
- , iodine (SHINOHARA) 1932, 96, 285
- , non-hydrolytic (TOENNIES and LAVINE) 1933, 100, xci
- rate, rabbit (STEARNS and LEWIS) 1930, 86, 93

Cystine—continued:

- Phaseolin (SULLIVAN) 1928, 78, xv
- Proteins, determination, colorimetric (FOLIN and MARENZI) 1929, 83, 103
- , pea and potato, deficiency
(BEADLES, BRAMAN, and MITCHELL) 1930, 88, 615
- Racemization, acid solution
(ANDREWS) 1932, 97, xix
- Reduction (DU VIGNEAUD, AUDRIETH, and LORING) 1930, 87, xxx
- , oxidation-reduction systems, kinetics (PREISLER) 1930, 87, 767
- Silver salts action (VICKERY and LEAVENWORTH) 1930, 86, 129
- Sodium hydroxide effect (THOR and GORTNER) 1932-33, 99, 383
- Solubility, acid-base systems
(TOENNIES and LAVINE) 1933, 100, 463
- Solution, Roentgen ray effect
(STENSTRÖM and LOHMANN) 1928, 79, 673
- Stability, acid-base systems
(TOENNIES and LAVINE) 1933, 100, 463
- Sulfite action upon (CLARKE) 1932, 97, 235
- Thiohydantoin (NICOLET) 1930, 88, 395
- derivatives, alkali action
(NICOLET) 1930, 88, 403
- Tissue, determination (SULLIVAN, HESS, and CHASE) 1930, 87, xxiv
- Urine, determination (SULLIVAN, HESS, and CHASE) 1930, 87, xxiv

d-Cystine: *l*-Cystine and, growth-promoting properties, comparison (DU VIGNEAUD, DORFMANN, and LORING)

1932, 98, 577

Isolation, pure (HOLLANDER and DU VIGNEAUD)

1931-32, 94, 243

i-Cystine: Resolution (HOLLANDER and DU VIGNEAUD)

1931-32, 94, 243

l-Cystine: Alkali salts, crystallized, preparation and properties (TOENNIES and LAVINE)

1931, 90, 203

d-Cystine and, growth-promoting properties, comparison (DU VIGNEAUD, DORFMANN, and LORING)

1932, 98, 577

Optical rotation (TOENNIES and LAVINE)

1930, 89, 153

Urine sulfur, monobromobenzene ingestion, relation (WHITE and LEWIS)

1932, 98, 607

Cystine hydrochloride: Iron-free, preparation (GERWE)

1931, 91, 57

Cystine phenylhydantoin: Decomposition (BERGMANN, ANDREWS, and ANDREWS)

1931, 92, xxxvii

Cystinuria: (BRAND, HARRIS, and BILOON)

1930, 86, 315

Metabolism (LEWIS and LOUGH)

1929, 81, 285

Tuberculosis (LEWIS and O'CONNOR)

1930, 87, lvii

Cytochrome: Yeast iron and (COOLIDGE)

1932, 98, 755

Cytosine: Nucleoside, metabolism (EMERSON and CERECEDO)

1930, 87, 453

D

Deficiency disease: Fat-free diet (BURR and BURR)

1929, 82, 345

Dehydrogenase: Intracellular, specificity (COLLETT)

1928, 78, 685

(COLLETT and CLARKE)

1929, 82, 429

(COLLETT, CLARKE, and MCGAVRAN)

1929, 82, 435

(COLLETT, RHEINBERGER, and LITTLE)

1933, 100, 271

—, —, hydrogen ion concentration effect (MCGAVRAN and RHEINBERGER)

1933, 100, 267

Muscle, cunner (COLLETT)

1928, 78, 685

—, fish and frog, compounds of arsenic, selenium, and tellurium, effect (COLLETT, RHEINBERGER, and LITTLE)

1933, 100, 271

—, — — —, poison effect, (COLLETT and CLARKE)

1929, 82, 429

—, frog (COLLETT, CLARKE, and MCGAVRAN)

1929, 82, 435

Depressor: Activity, brain extracts (WEBER, NANNINGA, and MAJOR)

1932, 97, xcvi

Dermatitis: Egg white, diet cure (PARSONS, LEASE, and KELLY)

1933, 100, lxxvii

—Preventing vitamin, ultra-violet rays, effect (HOGAN and RICHARDSON)

1932, 97, vii

—Producing factor, egg white (PARSONS and KELLY)

1933, 100, 645

Desose: *d*-2-Gluco-, blood sugar, influence (FREUDENBERG)

1932-33, 99, 647

Desoxy acids: Lactones, unsaturated hydrogenation to (JACOBS and SCOTT)

1930, 87, 601

1931, 93, 139

Dextrin: Metabolism rate, ingestion effect (WESSON)

1930, 87, liii

Respiratory quotient, ingestion effect (WESSON)

1930, 87, liii

Dextrose: Levulose and, galactose tolerance, effect (CORLEY)

1928, 76, 31

See also Glucose.

Diabetes: Blood diastase, insulin effect (REID and MYERS)

1932-33, 99, 607

— sugar, dialysis rate (BELL and KLEINER)

1930, 87, xxxv

— — distribution (SHOPE)

1928, 78, 111

(SPANNÜTH and POWER)

1931, 93, 343

— — —, insulin effect (SHOPE)

1928, 78, 111

Coma, blood, physicochemical properties (DILL, BOCK, LAWRENCE, TALBOTT, and HENDERSON)

1929, 81, 551

Galactose tolerance (ROE and SCHWARTZMAN)

1932, 96, 717

Glucose-lactic acid cycle (HIMWICH, CHAMBERS, KOSKOFF, and NAHUM)

1931, 90, 417

Ketonuria, insulin effect (BEHRE)

1931, 92, 679

Diabetes—continued:

Ketosis threshold (McCLELLAN, SPENCER, FALK, and DU BOIS)

1928, 80, 639

Mellitus, blood colloidal osmotic pressure (RABINOWITCH)

1930, 87, lvii

Muscle sugar, true (TRIMBLE and CAREY)

1931, 90, 655

Myrtomel effect (MORRELL, VARLEY, HART, and SCHWOCH)

1928, 78, lxviii

Pancreatic, blood acetone, various organs, effect (HIMWICH, GOLDFARB, and WELLER)

1931, 93, 337

Phlorhizin, blood acetone, various organs, effect (HIMWICH, GOLDFARB, and WELLER)

1931, 93, 337

—, glucose tolerance and nutrition (DEUEL)

1930, 89, 77

—, mechanism (NASH)

1929, 83, 139

(DEUEL) 1930, 89, 77

—, nature (SHORR, LOEBEL, and RICHARDSON)

1930, 86, 529

—, nutrition and glucose tolerance (DEUEL)

1930, 89, 77

Skin sugar, true (TRIMBLE and CAREY)

1931, 90, 655

Tissue, respiratory quotient (RICHARDSON, SHORR, and LOEBEL)

1930, 86, 551

Diacetic acid: Metabolism, fasting (BUTTS and DEUEL)

1933, 100, 415

Diacetone galactose: Ring structure (LEVENE and MEYER)

1931, 92, 257

- Diacetone methylmannoside:** α and β forms (LEVENE and MEYER) 1928, 78, 363
- Dialuric acid:** Amino acid oxidation by (HILL) 1932, 95, 197
- Oxidation, spontaneous (HILL) 1929-30, 85, 713
- 1932, 95, 197
- , —, iron and cyanides, effect (HILL) 1931, 92, 471
- Dialyzer:** Continuous (AITKEN) 1931, 90, 161
- α , β -Diaminopropionic acid:** Titration constants, various isomers and, relation (GREENSTEIN) 1932, 96, 499
- Diastase:** Animal (MYERS and REID) 1932-33, 99, 595
- (REID and MYERS) 1932-33, 99, 607
- (REID, QUIGLEY, and MYERS) 1932-33, 99, 615
- Blood, determination (SOMOGYI) 1932, 97, lxxxvi
- , —, methods, comparison (MYERS and REID) 1932-33, 99, 595
- , diabetes, insulin effect (REID and MYERS) 1932-33, 99, 607
- , insulin effect (REID) 1932, 97, p. 1
- , pancreatectomy (REID, QUIGLEY, and MYERS) 1932-33, 99, 615
- Tissue, pancreatectomy (REID, QUIGLEY, and MYERS) 1932-33, 99, 615
- Dicalcium phosphate:** Blood serum equilibration with (SHEAR and KRAMER) 1930, 86, 677
- Dicalcium phosphate—continued:** Blood serum solutions, equilibration with (SHEAR, WASHBURN, and KRAMER) 1929, 83, 697
- Dicarboxylic amino acids:** Nutrition, relation (ST. JULIAN and ROSE) 1932, 98, 439
- Diet:** (*See note on p. 173*)
- Age, and unusual, effect (MAC-KAY and MAC-KAY) 1930, 86, 765
- Allantoin excretion, effect (CHRISTMAN) 1930, 86, 477
- Appetite influence (GRAHAM and GRIFFITH) 1931, 92, lxiii
- Bile salt metabolism, effect (SMITH, GROTH, and WHIPPLE) 1928, 80, 659
- Blood cholesterol, women, relation (OKEY and STEWART) 1932-33, 99, 717
- lipids and (BLOOR) 1932, 95, 633
- phosphorus distribution, effect (HELLER, HUNTER, and THOMPSON) 1932, 97, 127
- serum calcium, influence (DUPRÉ and SEMEONOFF) 1931-32, 94, 341
- — —, parathyroidectomy, effect (SHELLING) 1932, 96, 215
- — phosphate, inorganic, influence (DUPRÉ and SEMEONOFF) 1931-32, 94, 341
- Body creatine, effect (CHANUTIN) 1930, 89, 765
- fat, influence (ECKSTEIN) 1929, 81, 613

Diet—continued:

Body fat, quality, relation
(ANDERSON and MENDEL)

1928, 76, 729

— nitrogen, effect (CHANUTIN)

1930, 89, 765

Calcium assimilation, dietary
factors influencing (HART,
STEENBOCK, TEUT, and
HUMPHREY)

1929, 84, 359, 367

(HART, STEENBOCK, KLINE,
and HUMPHREY)

1930, 86, 145

Copper in egg, effect (ELVEHJEM,
KEMMERER, HART,
and HALPIN)

1929-30, 85, 89

— — milk, effect (ELVEHJEM,
STEENBOCK, and HART)

1929, 83, 27

Deficient, phospholipid metab-
olism, effect (MONAGHAN)

1932, 98, 21

Factor, carbohydrate metab-
olism (WESSON and MUR-
RELL)

1933, 100, cii

Fatty liver production (BLA-
THERWICK, MEDLAR, BRAD-
SHAW, POST, and SAWYER)

1933, 100, xviii

Feces fatty acids, volatile,
lower, effect (GROVE, OLM-
STED, and KOENIG)

1929-30, 85, 127

Fertility requirements (SURE)

1928, 76, 659, 673, 685

1928, 80, 289, 297

(SURE and WALKER)

1931, 91, 69

Gastrointestinal tract, hydro-
gen ion concentration, rela-
tion (GRAYZEL and MILLER)

1928, 76, 423

Diet—continued:

Goiter, relation (LEVINE)

1932, 97, c

(REMINGTON) 1932, 97, ci

Growth relation (HOGAN, HUN-
TER, and KEMPSTER)

1928, 77, 431

(GRAHAM and GRIFFITH)

1931, 92, lxiii

Hair composition, relation
(LIGHTBODY and LEWIS)

1929, 82, 663

Hemorrhagic disease and (KU-
GELMASS)

1932, 97, xii

Iron in egg, effect (ELVEHJEM,
KEMMERER, HART, and HAL-
PIN)

1929-30, 85, 89

Lactation requirements (SURE)

1928, 76, 659, 673, 685

1928, 80, 289, 297

(SURE and WALKER)

1931, 91, 69

Manganese in milk, effect
(KEMMERER and TODD)

1931-32, 94, 317

Milk secretion effect (Koz-
LOWSKA and McCAY)

1931, 92, lxiii

Modification, respiratory quo-
tient, abnormal, on fat-defi-
cient intake, effect (WESSON)

1933, 100, 365

Muscle, striated, phosphorus
distribution, influence (COLE
and KOCH)

1931-32, 94, 263

Normal, tetany induction, rick-
ets (HESS, WEINSTOCK, BEN-
JAMIN, and GROSS)

1931, 90, 737

Principle, new, liver (SEEGERS
and SMITH)

1933, 100, lxxxvii

Diet—continued:

- Reaction, calcium and phosphorus metabolism, lactation and pregnancy, influence (GOSS and SCHMIDT) 1930, 86, 417
- , parathyroid extract, response, effect (MORGAN and GARRISON) 1929–30, 85, 687
- Synthetic, hemoglobin maintenance and production (DRABKIN and WAGGONER) 1930, 89, 51
- , Herbivora (McCAY, MADSEN, and MAYNARD) 1933, 100, lxviii
- Tetany, parathyroidectomy, effect (SHELLING) 1932, 96, 215
- Tissue phospholipid fatty acids, influence (SINCLAIR) 1930, 86, 579
- See also* Feedingstuff, Food, Foodstuff, Ration.
- Diethylbarbiturate:** Buffer (MICHAELIS) 1930, 87, 33
- Digestion:** (*See note on p. 173*)
- Function, determination, quantitative (BERGEIM) 1928, 78, xliii
- In vitro* (JONES and GERSDORFF) 1933, 100, lviii
- Digitalis:** Glucosides (JACOBS and GUSTUS) 1928, 78, 573
1928, 79, 533
1929, 82, 403
1930, 86, 199
1930, 88, 531
(JACOBS and ELDERFIELD) 1932–33, 99, 693
1933, 100, 671

Digitalis—continued:

- Sapogenin (JACOBS and FLECK) 1930, 88, 545
- Tigogenin (JACOBS and FLECK) 1930, 88, 545
- Digitoxigenin:** (JACOBS and GUSTUS) 1928, 78, 573
- Anhydrodihydro-, oxidation (JACOBS and ELDERFIELD) 1932–33, 99, 693
- Gitoxigenin, correlation (JACOBS and GUSTUS) 1930, 86, 199
- Iso- (JACOBS and GUSTUS) 1928, 78, 573
- Periplogenin, correlation (JACOBS and ELDERFIELD) 1931, 92, 313
- Strophanthidin, correlation (JACOBS and ELDERFIELD) 1931, 92, 313
- Dihydrocarotene:** Hydrogenation (SMITH) 1932, 96, 35
- Dihydrogitoxigenin:** Isomeric (JACOBS and ELDERFIELD) 1933, 100, 671
- Dihydroxyacetone:** Autocondensation (LEVENE and WALTJ) 1928, 78, 23
- Blood, determination (McCLELLAN) 1928, 76, 481
- Glucose and, metabolism effect, comparison (McCLELLAN, BIASOTTI, and HANNON) 1928, 78, 719
- Hypoglycemia, insulin, effect (LEVENE and BLANCO) 1928, 79, 657
- Urine, determination (McCLELLAN) 1928, 76, 481
- Utilization, insulin influence (CORI and CORI) 1928, 76, 755

- α - Dihydroxy - β - dithiodipropionic acid:** Cystine-deficient diet, supplement (WESTERMAN and ROSE)
1928, 79, 413
- 5,6-Dihydroxyhexanone-2:** (LEVENE and WALTY)
1930, 88, 771
- Dihydroxyphenylalanine:** Dissociation constants, apparent (MIYAMOTO and SCHMIDT)
1931, 90, 165
- Dihydroxystearic acid:** Free, *Lactobacillus acidophilus* fat (CROWDER and ANDERSON)
1932, 97, 393
- Diiodotyrosine:** Fate, animal organism (FOSTER and GUTMAN)
1930, 87, 289
Physical constants (DALTON, KIRK, and SCHMIDT)
1930, 88, 589
- 3,5-Diiodotyrosine:** Thyroid, isolation (FOSTER)
1929, 83, 345
- Dileucine hydrochloride:** (BARNETT)
1933, 100, 543
- Dimethylamine:** Metabolism (LANGLEY and WEBER)
1930, 89, 567
- Dipeptide(s):** Acetic anhydride action (LEVENE and STEIGER)
1931, 93, 581
Acetyl-, hydrolysis (LEVENE and STEIGER)
1931, 93, 581
Hydrolysis, alkali (LEVENE, BASS, and STEIGER)
1929, 82, 167
(LEVENE, STEIGER, and ROTHEN)
1932, 97, 717
—, enzyme (LEVENE, BASS, and STEIGER)
1929, 81, 221
(LEVENE, STEIGER, and BASS)
1929, 82, 155
- Disulfide acids:** Cystine-deficient diet, supplement (WESTERMAN and ROSE)
1928, 79, 413
Oxidation, animal organism (WESTERMAN and ROSE)
1928, 79, 423
- Disulfides:** Oxidation (SHINOHARA)
1932, 97, xxii
- Dithio acids:** Reduction, oxidation-reduction systems, kinetics (PREISLER)
1930, 87, 767
- Sulfonic and thiol acids,** production by mercuric salts (PREISLER and PREISLER)
1932, 95, 181
— — — —, production by silver sulfate (PREISLER and PREISLER)
1930, 89, 631
— — — —, production, simultaneous, by mercuric bromide (PREISLER)
1931, 92, xxxvi
- Diuresis:** Antidiuretic activity, pituitary extracts, posterior (GROTE, JONES, and KAMM)
1931, 92, xcv
- Diuretic:** Purine, blood and urine phosphates, inorganic, influence (BOLLIGER)
1928, 76, 797
- Dixanthidryl urea:** Oxidation (LUCK)
1928, 79, 211
—, dichromate reaction (ALLEN and LUCK)
1929, 82, 693
- Dogfish:** Blood reducing substances (WHITE)
1928, 77, 655
- Donnan equilibrium:** (MUNTWYLER, WAY, and POMERENE)
1931, 92, 733

Donnan equilibrium—continued:

- Muscle potassium, influence (MITCHELL) 1928, 78, x
- Drying:** Alfalfa, vitamin A effect (HAUGE and AITKENHEAD) 1931, 93, 657
- Fruit, antiscorbutic effect (MORGAN and FIELD) 1929, 82, 579
- , vitamin A effect (MORGAN and FIELD) 1930, 88, 9
- Duodenum:** Aluminum compounds, baking powder residues, solubility in (MYERS and KILLIAN) 1928, 78, 591
- Extract, blood sugar, action (LAUGHTON, MACALLUM, RABINOWITCH, and WATSON) 1931, 92, xx
- Dye:** Basic, protein combination (RAWLINS and SCHMIDT) 1929, 82, 709
- Blood cell, red, glycolysis and lactic acid formation, effect (BARRON and HARROP) 1928, 79, 65
- Cellular oxygen consumption, catalyst, cyanide effect (BARRON and HAMBURGER) 1932, 96, 299
- Gelatin and, reaction, stoichiometrical relations (STEARNS) 1931, 91, 325
- granules, combination (RAWLINS and SCHMIDT) 1930, 88, 271
- Nucleic acid and, reaction, stoichiometrical relations (STEARNS) 1931, 91, 325
- Dyspnea:** Cardiac, mechanism, respiration control (CULLEN, HARRISON, CALHOUN, WILKINS, and PILCHER) 1931, 92, iv

E

- Eck fistula:** Bile salt output effect (SMITH and WHIPPLE) 1930, 89, 739
- Eclampsia:** Acid-base equilibrium, blood (STANDER, EASTMAN, HARRISON, and CADDEN) 1929-30, 85, 233
- Edema:** Fluids, blood proteins, nephritic urine, comparison (CAVETT) 1930, 87, xvi
- Production, protein-low diet (FRISCH, MENDEL, and PETERS) 1929, 84, 167
- , sodium bromide effect (HASTINGS and VAN DYKE) 1928, 78, xxxv
- Edestin:** Amino acids, basic, determination (CALVERY) 1929, 83, 631
- Bases (VICKERY and LEAVENWORTH) 1928, 76, 707
- Eel:** Blood phosphorus, blood sugar and hemoglobin, distribution (McCAY) 1931, 90, 497
- Efficiency quotient:** Food, growth influence (PALMER and KENNEDY) 1930, 87, xlv
- 1931, 90, 545
- Egg:** Albumin, bile salt metabolism effect (SMITH and WHIPPLE) 1930, 89, 689
- , coagulated and uncoagulated, titration curves, comparison (HENDRIX and WILSON) 1928, 79, 389
- , crystallized (CALVERY) 1931-32, 94, 613
- , purified, rotatory power, acid and protein combination, relation (ALMQUIST and GREENBERG) 1931, 93, 167

Egg—continued:

- Albumin, purified, rotatory power, alkali and protein combination, relation (ALMQUIST and GREENBERG) 1931, 93, 167
- Antirachitic potency, ergosterol, activated, effect (McDONALD and MASSENGALE) 1932-33, 99, 79
- Copper, diet effect (ELVEHJEM, KEMMERER, HART, and HALPIN) 1929-30, 85, 89
- Developing, amino acids, basic (CALVERY) 1929, 83, 649
- , —, —, yolk, white, embryo, and shell membranes (CALVERY) 1932, 95, 297
- , nitrogen distribution (CALVERY) 1929, 83, 231
- , tyrosine, tryptophane, cystine, cysteine, and uric acid (CALVERY) 1930, 87, 691
- Iron, diet effect (ELVEHJEM, KEMMERER, HART, and HALPIN) 1929-30, 85, 89
- Nutritional effect (ROSE and McCOLLUM) 1928, 78, 549
- Proteins, carbohydrate, molecular size (LEVENE and ROTHEN) 1929, 84, 63
- Shell keratin (CALVERY) 1932, 97, xxvi
1933, 100, 183
- Vitellin (CALVERY and WHITE) 1931-32, 94, 635
- White, dermatitis, diet cure (PARSONS, LEASE, and KELLY) 1933, 100, lxxvii
- , dermatitis-producing factor (PARSONS and KELLY) 1933, 100, 645
- injury (PARSONS) 1931, 92, lxiv

Egg—continued:

- White-rich diet, effect (PARSONS) 1931, 90, 351
- White, toxicity, heat effect (PARSONS) 1932, 97, xxx
- Yolk, bile salt output, influence (SMITH and WHIPPLE) 1928, 80, 671
- , iron and copper (ERIKSON, BOYDEN, MARTIN, and INSKO) 1933, 100, xl
- , protein, bile salt metabolism effect (SMITH and WHIPPLE) 1930, 89, 689
- Elasmobranch: Body fluids (SMITH) 1929, 81, 407
- Tissue phosphatase (BODANSKY, BAKWIN, and BAKWIN) 1931-32, 94, 551
- Electric current: High frequency, hyperthermia (BISCHOFF, ULLMANN, HILL, and LONG) 1929-30, 85, 675
- Electrical conductivity: Tissue, human, alternating currents (HEMINGWAY and McCLENDON) 1932, 97, xcix
- Urine, glomerulus, frog and *Necturus* (BAYLISS and WALKER) 1930, 87, 523
- Electrical forces: Biological systems (COHN, McMEEKIN, EDSALL, and WEARE) 1931, 92, xlv
(COHN, McMEEKIN, EDSALL, and BLANCHARD) 1933, 100, xxviii
- Electrocardiogram: Shock and adrenalin, effect (LANDIS) 1933, 100, lxi
- Electrode: Barium amalgam, amphoteric substances, solution (KIRK and SCHMIDT) 1928, 76, 115

Electrode—continued:

Glass, potentials, measurement (FOSBINDER and SCHOONOVER)

1930, 88, 605

—, vacuum tube potentiometer for (DuBois) 1930, 88, 729

Mercury, cysteine potential at, mechanism (BARRON, FLEXNER, and MICHAELIS)

1929, 81, 743

Quinhydrone-collodion (BUGHER) 1931, 92, 513

Quinhydrone, improved (CULLEN) 1929, 83, 535

—, titrimetric (MEEKER and REINHOLD) 1928, 77, 505

Sodium amalgam, amphoteric substances, solution (KIRK and SCHMIDT)

1928, 76, 115

Electrolyte: Blood, equilibrium, acidosis (HARKINS and HASTINGS) 1931, 90, 565

—, gas and, equilibrium (VAN SLYKE, SENDROY, HASTINGS, and NEILL)

1928, 78, 765

(VAN SLYKE and SENDROY)

1928, 78, 801

(HASTINGS, SENDROY, and VAN SLYKE) 1928, 79, 183

(HASTINGS, SENDROY, MCINTOSH, and VAN SLYKE)

1928, 79, 193

(VAN SLYKE, HASTINGS, HILLER, and SENDROY)

1928, 79, 769

(VAN SLYKE and SENDROY)

1928, 79, 781

(VAN SLYKE and HAWKINS)

1930, 87, 265

Electrolyte—continued:

Blood serum and dialysate, *in vivo*, distribution between (GREENE and POWER)

1931, 91, 183

— — — transudates, distribution between (GREENE, BOLLMAN, KEITH, and WAKEFIELD) 1931, 91, 203

Ultrafiltration, alkali caseinate solutions (GREENBERG and GREENBERG)

1931-32, 94, 373

Embryo: Chicken, hexose nucleic acid (CALVERY)

1928, 77, 497

—, pentose nucleotides (CALVERY) 1928, 77, 489

Egg, amino acids, during egg development (CALVERY)

1932, 95, 297

Growth, chemistry (WILKERSON and GORTNER)

1932, 97, lxi

—, nitrogen compounds in (WILKERSON and GORTNER)

1932, 97, lxi

Metabolism (CALVERY)

1928, 77, 489, 497

1929, 83, 231, 649

1930, 87, 691

1932, 95, 297

Emmenin: Estrogenic hormones, relation (COLLIP, BROWNE, and THOMSON)

1932, 97, xvii

Emulsin: Chemistry (TAUBER)

1932-33, 99, 257

d- and *l*-methyl-*n*-hexylcarbinol *d*-glucosides, hydrolysis (MITCHELL) 1929, 82, 727

- Energy:** Morphine withdrawal, changes (BARBOUR, GREGG, and HUNTER) 1930, 87, xlv
Nerve activity, source (RONZONI) 1931, 92, iii
- Enterokinase:** Trypsinogen-, system (BATES) 1931, 92, lxxvii
- Enzyme:** Action, mechanism (NORD and FRANKE) 1928, 79, 27
- Artificial, proteolytic, hematoporphyrin (BOYD) 1933, 100, xix
- Bacterial, proteolytic, formaldehyde-stable (BOOR and MILLER) 1933, 100, xix
- Fungus cultures, determination (KERTESZ) 1931, 90, 15
- Glycolytic, pancreatic juice (BOLDYREFF) 1928, 78, lix
- Intestinal loop, transplanted (PIERCE, NASSET, and MURLIN) 1931, 92, lxxvi
- Proteolytic, in ficin (ROBBINS) 1930, 87, 251
- , titration, Gates method (GILMAN and COWGILL) 1930, 88, 743
- Purification (SHERMAN, CALDWELL, and ADAMS) 1930, 88, 295
- (KIRK) 1933, 100, 667
- Succinate-fumarate equilibrium, rôle in (BORSOOK and SCHOTT) 1931, 92, 535
- Tryptophane liberation, proteins (RAGINS) 1928, 80, 551
- See also* Amylase, Antiprotease, etc.
- Epichlorohydrin:** Potassium acetate, reaction (LEVENE and WALTI) 1928, 77, 685
- Epilepsy:** Ketosis threshold (McCLELLAN, SPENCER, FALK, and DU BOIS) 1928, 80, 639
- Epinephrine:** Action, mechanism (CORI and CORI) 1928, 79, 309, 321, 343
1929, 84, 683
(CORI, CORI, and BUCHWALD) 1930, 86, 375
- Anaerobic action (CORI and BUCHWALD) 1930, 87, xxxviii
(BUCHWALD and CORI) 1931, 92, 355
- Blood lactic acid, effect (CORI, CORI, and BUCHWALD) 1930, 86, 375
- plasma fats, effect (LONG and VENNING) 1932, 96, 397
- — phospholipid, amytal and, effect (MILLER) 1933, 100, lxx
- sugar, effect (CORI and CORI) 1929, 84, 699
- — utilization, influence (CORI and CORI) 1929, 84, 683
- Calorigenic action, before and after hepatectomy (CORI and BUCHWALD) 1931, 92, 367
- Carbohydrate balance, effect (CORI and CORI) 1928, 78, lxii
- metabolism, fasting, effect (CORI and CORI) 1928, 79, 309
- —, influence (CORI and CORI) 1928, 79, 321
- Ch'an su, isolation (JENSEN and CHEN) 1929, 82, 397
- Glucose from, pancreatectomy (BOLLMAN, MANN, and WILHELMJ) 1931, 93, 83

Epinephrine—continued:

Glucose utilization, effect (CORI and CORI) 1928, 79, 343

Glycogen distribution, influence (BLATHERWICK and SAHYUN) 1929, 81, 123
(SAHYUN and LUCK) 1929-30, 85, 1

Lactic acid production, influence (CORI and CORI) 1929, 84, 683

-Lipid combination, suprarenal (KOEHLER and EICHELBERGER) 1930, 87, xxxviii

Lipid excretion, effect (HILL and KOEHLER) 1932, 98, 185

Liver glycogen, effect (CORI, CORI, and BUCHWALD) 1930, 86, 375

— — formation, influence (CORI and CORI) 1929-30, 85, 275

Metabolism effects, prolonged administration (KOEHLER, BISCHOFF, and HILL) 1931, 92, li

Muscle hexosephosphate, effect (CORI and CORI) 1931, 92, lii
1931-32, 94, 581

Sugar formation from fatty acids, pancreatectomy, effect (CHAIKOFF and WEBER) 1928, 76, 813

See also Adrenalin.

Ergosterol: (BILLS and HONEYWELL) 1928, 80, 15

Absorption spectrum (KOCH, KOCH, and LEMON) 1929-30, 85, 159

Ergosterol—continued:

Activated, blood serum calcium and inorganic phosphorus, effect (MASSENGALE and NUSSMEIER) 1930, 87, 415

—, egg antirachitic potency, effect (McDONALD and MASSENGALE) 1932-33, 99, 79

—, feeding experiments (BILLS and WIRICK) 1930, 86, 117

—, heat of combustion (BILLS, McDONALD, BE MILLER, STEEL, and NUSSMEIER) 1931, 93, 775

—, leg weakness prevention (MASSENGALE and NUSSMEIER) 1930, 87, 423

Activation, biophysical studies (BILLS, HONEYWELL, and COX) 1928, 80, 557

—, solvents influence (BILLS, HONEYWELL, and COX) 1931, 92, 601

Antirachitic activation (BEARD, BURK, THOMPSON, and GOLDBLATT) 1932, 96, 307

— potency, ultra-violet light and cathode rays, effect (KNUDSON and MOORE) 1928, 78, xix
1929, 81, 49

Heat of combustion (BILLS, COX, and STEEL) 1929, 84, 655

Identification, *Aspergillus fischeri* (PRUESS, PETERSON, and FRED) 1932, 97, 483

Irradiated, blood cell and plasma phosphorus distribution, effect (GUEST and WARKANY) 1933, 100, 445

Ergosterol—continued:

- Irradiated, blood effect (HESS,
LIGHT, FREY, and GROSS)
1932, 97, 369
- , bone effect (KRAMER,
SHEAR, and MCKENZIE)
1929, 82, 555
- , calcium metabolism, effect
(KERN, MONTGOMERY, and
STILL) 1931, 93, 365
- , — —, normal and rachi-
tic rats, effect (BROWN and
SHOHL) 1930, 86, 245
- , excreta effect (HESS, LIGHT,
FREY, and GROSS)
1932, 97, 369
- , femur ash, effect (JONES
and ROBSON) 1931, 91, 43
- , hypercalcemia and hyper-
phosphatemia, calcium and
phosphorus intake, relation
(JONES and RAPOPORT)
1931, 93, 153
- , —, calcium source (JONES,
RAPOPORT, and HODES)
1930, 89, 647
(HESS, BENJAMIN, and
GROSS) 1931-32, 94, 1
- , milk effect (HESS, LIGHT,
FREY, and GROSS)
1932, 97, 369
- , — vitamin D, effect
(KRAUSS and BETHKE)
1931, 92, x
- , muscle, striated, phos-
phorus distribution, influ-
ence (COLE) 1931, 92, xv
(COLE and KOCH)
1931-32, 94, 263
- , nitrogen metabolism, effect
(KERN, MONTGOMERY, and
STILL) 1931, 93, 365

Ergosterol—continued:

- Irradiated, parathyroidectomy,
effect (ASHER and JONES)
1933, 100, 333
- , phosphorus metabolism,
effect (KERN, MONTGOM-
ERY, and STILL)
1931, 93, 365
- , — —, normal and rachitic
rats, effect (BROWN and
SHOHL) 1930, 86, 245
- , thyroparathyroidectomy,
effect (JONES, RAPOPORT, and
HODES) 1930, 86, 267
- , toxicity, parathyroid
glands, relation (JONES)
1933, 100, 343
- , vitamin D, fish liver oils,
natural, comparison (STEEN-
BOCK, KLETZIEN, and HAL-
PIN) 1932, 97, 249
- Iso-, heat of combustion
(BILLS, COX, and STEEL)
1929, 84, 655
- , vitamin D relation (BILLS,
McDONALD, and COX)
1930, 87, liii
(COX and BILLS)
1930, 88, 709
- Isolation, *Aspergillus fischeri*
(PRUESS, PETERSON, and
FRED) 1932, 97, 483
- Isomerization (BILLS and COX)
1929, 84, 455
(BILLS and McDONALD)
1930, 88, 337
- , fullers' earth (McDONALD
and BILLS) 1930, 88, 601
- Unirradiated, absorption
(SCHOENHEIMER)
1931, 92, v

Ergosterol—continued:

Yeast, carbohydrate sources
(MASSENGALE, BILLS, and
PRICKETT) 1931-32, 94, 213

—, cerevisterol accompanying
(HONEYWELL and BILLS)

1932, 97, xxxix

1932-33, 99, 71

—, various species (BILLS,
MASSENGALE, and PRICK-
ETT) 1930, 87, 259

See also Viosterol.

Ergosterol esters: (BILLS and
HONEYWELL) 1928, 80, 15

Ergot: Alkaloids (JACOBS)
1932, 97, 739

Ergothioneine: Histidine-defi-
cient diet, supplement
(EAGLES and COX)

1928, 80, 249

Physiology (EAGLES and VARS)

1928, 80, 615

See also Thioneine.

Ergotinine: Oxidation (JACOBS)
1932, 97, 739

Erythrocyte: *See* Blood cell, red.

Eskimo: Ketosis, fasting (HEIN-
BECKER) 1932-33, 99, 279

Metabolism (HEINBECKER)

1928, 80, 461

1931, 93, 327

Esterase: Liver, inhibition, and
alcohols, aliphatic, saturated,
chemical constitution, rela-
tion (GLICK and KING)

1931-32, 94, 497

—, —, — organic compounds,
chemical constitution, rela-
tion (GLICK and KING)

1932, 95, 477

Organic compounds, chemical
constitution, relation (GLICK)

1932, 97, lxvii

Estrin: Feces, hen, occurrence
(GUSTAVSON) 1931, 92, lxxi

Pituitary lobe, anterior, effect
(D'AMOUR) 1931, 92, lxxxv

Estrus: Hormones, emmenin, rela-
tion (COLLIP, BROWNE, and
THOMSON) 1932, 97, xvii

Manganese-free diet effect
(ORENT and McCOLLUM)

1932, 98, 101

Ethyl alcohol: Absorption, in-
testine (CORI, VILLIAUME,
and CORI) 1930, 87, 19

See also Alcohol.

Ethylbenzylcarbinol: Carbinols,
aliphatic, simple, configura-
tional relationship (LEVENE
and WALTY)

1931-32, 94, 367

Ethylbutylcarbinol: Lactic acid,
configurational relationship
(LEVENE and HALLER)

1929, 83, 579

Ethylene: Cell permeability, ac-
tion (NORD and FRANKE)

1928, 79, 27

— protector (NORD and
FRANKE) 1928, 79, 27

Ethyl iodide: Determination
(COOL) 1932, 97, 47

Ethyl isothiocyanate: Sulfur
metabolism, influence (SAND-
BERG and HOLLY)

1932, 97, 31

Ethylmethylcarbinol: Ethylpro-
pylcarbinol, configurational
relationship (LEVENE and
HALLER) 1928, 76, 415

Ethylpropylcarbinol: Ethylmeth-
ylcarbinol, configurational
relationship (LEVENE and
HALLER) 1928, 76, 415

- Ethyl thiocyanate:** Sulfur metabolism, influence (SANDBERG and HOLLY) 1932, 97, 31
- Excreta:** Irradiated yeast or ergosterol, effect (HESS, LIGHT, FREY, and GROSS) 1932, 97, 369
- Exercise:** Blood sugar, capillary, effect (TRIMBLE and MADDOCK) 1929, 81, 595
- Calcium balance, effect (TURNER and HARTMAN) 1928, 78, xxvii
- Glycogen resynthesis, fasting effect (LONG and GRANT) 1930, 89, 553
- Lactic acid neutralization, ammonia fôle (BLISS) 1929, 81, 137
- — removal (EDWARDS, MARGARIA, and DILL) 1933, 100, xxxviii
- d-Lactic acid conversion to muscle glycogen (LONG and HORSFALL) 1932, 95, 715
- Nitrogen balance, effect (TURNER and HARTMAN) 1928, 78, xxvii
- metabolism (CHAMBERS and MILHORAT) 1928, 77, 603
- Phosphorus balance, effect (TURNER and HARTMAN) 1928, 78, xxvii
- Recovery process, mammal (LONG and GRANT) 1930, 87, lviii
1930, 89, 553
(LONG and HORSFALL) 1932, 95, 715
- Respiratory metabolism, pancreatectomy (CHAMBERS, KENNARD, POLLACK, and DANN) 1932, 97, 525
- Exercise—continued:**
- Respiratory quotient, abnormal, fat-deficient diet, effect (WESSON) 1933, 100, 365
- Running, metabolism (TALBOTT, FÖLLING, HENDERSON, DILL, EDWARDS, and BERGGREN) 1928, 78, 445
- Urine phosphate, inorganic, excretion, fasting, effect (MULDER, PHILLIPS, and VISSCHER) 1932, 98, 269
- See also* Muscle, Work.
- Exhaustion:** Blood changes (SCHLUTZ, HASTINGS, and MORSE) 1933, 100, lxxxv
- Extraction:** Apparatus, low temperatures (GREENWALD and LEVY) 1930, 87, 281
- Extractor:** Continuous (BLOCK) 1933, 100, 537
- Soxhlet, at low temperatures, reduced pressure (HAMBLETON) 1932-33, 99, 289
- Fasting:** Bile salt output (SMITH, GROTH, and WHIPPLE) 1928, 80, 659
- Blood changes, puppies (PUCHER) 1928, 76, 319
- creatine, influence (CHANUTIN and SILVETTE) 1928, 80, 589
- plasma lipids (GLUSKER) 1930, 88, 381
- Body creatine, effect (CHANUTIN) 1930, 87, viii
(CHANUTIN and SHEARER) 1931, 91, 475
- nitrogen, effect (CHANUTIN) 1930, 87, viii
(CHANUTIN and SHEARER) 1931, 91, 475

Fasting—continued:

- Carbohydrate metabolism, adrenalin effect (LONG and BISCHOFF) 1932, 98, 85
 — —, epinephrine influence (CORI and CORI) 1928, 79, 309
 Creatine excretion (MORGULIS) 1929, 83, 299
 Creatinine excretion (MORGULIS) 1929, 83, 299
 Diacetic acid metabolism (BUTTS and DEUEL) 1933, 100, 415
 Fat transport, lymph system (RONY, MORTIMER, and IVY) 1932, 96, 737
 Glucose metabolism (DANN and CHAMBERS) 1930, 89, 675
 1933, 100, 493
 Glycogen resynthesis, exercise effect (LONG and GRANT) 1930, 89, 553
 Glycogenesis from glucose administration (DANN and CHAMBERS) 1932, 95, 413
 Hypercholesterolemia, fat, carbohydrates, and proteins, administration effect (SHOPE) 1928, 80, 133
 Ketonuria (BEHRE) 1931, 92, 679
 Ketosis, Eskimos (HEINBECKER) 1932-33, 99, 279
 —, Primates (FRIEDEMANN) 1928, 78, lxi
 —, sexual variation (DEUEL and GULICK) 1932, 96, 25
 Muscle creatine, effect (CHANUTIN and SHEARER) 1931, 91, 475

Fasting—continued:

- Muscle nitrogen, effect (CHANUTIN and SHEARER) 1931, 91, 475
 Oxygen consumption (DAVIS and VAN DYKE) 1933, 100, 455
 Sulfur metabolism (MORGULIS) 1928, 77, 627
 Tetany, rickets (WILDER) 1929, 81, 65
 (SHOHL and BROWN) 1929, 84, 501
 Tissue creatine, influence (CHANUTIN and SILVETTE) 1928, 80, 589
 Urine changes, puppies (PUCHER) 1928, 76, 319
 — phosphate, inorganic, excretion, exercise effect (MULDER, PHILLIPS, and VISCHEER) 1932, 98, 269
 — sulfur partition (MORGULIS) 1928, 77, 627
 Fat(s): Absorption, phospholipids, various sources, rôle (SINCLAIR) 1929, 82, 117
 Acetone-soluble, timothy bacillus (PANGBORN, CHARGAFF, and ANDERSON) 1932, 98, 43
 —, tubercle bacillus (ANDERSON and CHARGAFF) 1929, 84, 703
 —, — —, bovine (BURT and ANDERSON) 1931-32, 94, 451
 —, — —, phthioic acid (ANDERSON and CHARGAFF) 1929-30, 85, 77
 —, — —, trehalose in (ANDERSON and NEWMAN) 1933, 100, iv

Fat(s)—continued:

- Acetone-soluble, tubercle bacillus, tuberculostearic acid (ANDERSON and CHARGAFF) 1929-30, 85, 77
- Acetyl number, determination (WEST, CURTIS, and HOAGLAND) 1933, 100, cii
- Adipose tissue, character and distribution (REED, ANDERSON, and MENDEL) 1932, 96, 313
- —, ovariectomy and thyroxine effect (REED, ANDERSON, and MENDEL) 1932, 96, 313
- Autoxidation (MATTELL) 1931, 90, 141
- Blood, determination, titration (STODDARD and DRURY) 1929, 84, 741
- lipids, ingestion effect (MAN and GILDEA) 1932-33, 99, 61
- plasma, epinephrine effect (LONG and VENNING) 1932, 96, 397
- —, mental depression (HILL, LONG, and SLIGHT) 1931, 92, lxxxi
- Body, cottonseed oil ingestion effect (ELLIS) 1931, 92, xxxv
- (ELLIS, ROTHWELL, and POOL) 1931, 92, 385
- , diet relation (ANDERSON and MENDEL) 1928, 76, 729
- (ECKSTEIN) 1929, 81, 613
- , fat-low ration, influence (ELLIS and ZELLER) 1930, 89, 185

Fat(s)—continued:

- Body, tricaproin ingestion influence (ECKSTEIN) 1929, 84, 353
- Carbohydrate, conversion to (DEUEL and MILHORAT) 1928, 78, 299
- Deficiency, iodine level, relation (BURR and BEBER) 1933, 100, xxiv
- Deficient diet, metabolic rate, and respiratory quotient, effect (WESSON and BURR) 1931, 91, 525
- intake, respiratory quotient, abnormal, exercise, intestinal fermentation, and diet modification, effect (WESSON) 1933, 100, 365
- Dietary, blood phosphorus distribution, lactation, relation (McCAY and MAYNARD) 1931, 92, 273
- , calcium utilization, relation (BOYD, CRUM, and LYMAN) 1932, 95, 29
- Digestibility coefficients, vitamin deficiency effect (St. JULIAN and HELLER) 1931, 90, 99
- , gossypol effect (GALLUP and REDER) 1931-32, 94, 221
- Digestion rate, blood chylomicrons of, as measure (MACARTHUR) 1930, 87, 299
- Excretion, Thiry-Vella fistula (ANGEVINE) 1929, 82, 559
- Fetus (CHAIKOFF and ROBINSON) 1933, 100, 13
- Free diet, deficiency disease (BURR and BURR) 1929, 82, 345

Fat(s)—continued:

- Free diet, growth (McAMIS, ANDERSON, and MENDEL) 1929, 82, 247
- , sucrose as energy source (EVANS and LEPKOVSKY) 1932, 96, 143
- High diet, calcium retention (MALLON, JORDAN, and JOHNSON) 1930, 88, 163
- , fatty acids, saturated, as energy source (EVANS and LEPKOVSKY) 1932, 96, 157
- , fetus fat, influence (CHAIKOFF and ROBINSON) 1933, 100, 13
- Hypercholesterolemia, fasting, administration effect (SHOPE) 1928, 80, 133
- Iodine determination (McCLENDON, MATHIESON, and HYNES) 1928, 78, xlv
- Lactobacillus acidophilus*, dihydroxystearic acid, free (CROWDER and ANDERSON) 1932, 97, 393
- Liver, sexual variation (DEUEL) 1933, 100, xxxv
- Low diet, calcium retention (MALLON, JORDAN, and JOHNSON) 1930, 88, 163
- , fetus fat, influence (CHAIKOFF and ROBINSON) 1933, 100, 13
- ration, body fat influence (ELLIS and ZELLER) 1930, 89, 185
- Metabolism (McCLURE and HUNTSINGER) 1928, 76, 1
- (MACARTHUR) 1930, 87, 299

Fat(s)—continued:

- Metabolism hormone, urine, normal (FUNK) 1933, 100, xliii
- , iodine level, relation (BURR and BEBER) 1933, 100, xxiv
- , liver lipids, and (SINCLAIR) 1933, 100, lxxxvii
- , phospholipid rôle (SINCLAIR) 1932, 95, 393
- Milk, human, composition, supplementary feeding effect of (KLEINER and BELL) 1928, 78, xxv
- , protein surrounding (TITUS, SOMMER, and HART) 1928, 76, 237
- Muscle, tetanus toxin, effect (DAVENPORT, DAVENPORT, and RANSON) 1930, 87, 295
- Neutral, beef liver and tissue (BLOOR and SNIDER) 1930, 87, 399
- , unsaturation, tissues, fat ingested, relation (SINCLAIR) 1932, 96, 103
- Phospholipids, unsaturation, tissues, ingestion effect (SINCLAIR) 1932, 96, 103
- Rennin coagulation, milk, removal effect (STONE and ALSBERG) 1928, 78, 557
- Spinach, composition (SPEER, WISE, and HART) 1929, 82, 105
- , unsaponifiable fraction (HEYL, WISE, and SPEER) 1929, 82, 111
- Sucrose-high diet, effect (EVANS and LEPKOVSKY) 1931, 92, 615

Fat(s)—continued:

- Tissue neutral fat unsaturation, influence (SINCLAIR)
1931, 92, 245
- phospholipids unsaturation, influence (SINCLAIR)
1931, 92, 245
- Transport, lymph system, fasting and phlorhizin poisoning (RONY, MORTIMER, and IVY)
1932, 96, 737
- Vitamin B, antineuritic, sparing action (EVANS and LEPKOVSKY)
1929, 83, 269
- — interaction, alimentary canal, sparing effect (EVANS and LEPKOVSKY)
1932-33, 99, 235
- B-sparing action (EVANS and LEPKOVSKY)
1932, 96, 179
1932-33, 99, 235, 237
- — —, melting point and unsaturation, relation (EVANS and LEPKOVSKY)
1932, 96, 165
- Fatigue:** Muscle, blood changes, effect (SCHLUTZ and MORSE)
1932, 97, lix
- Fatty acid(s):** Blood serum, beef tissue feeding (MULLER)
1929, 84, 345
- —, determination, Stoddard-Drury method, modification (MAN and GILDEA)
1932-33, 99, 43
- Brain, unsaturated, highly, beef (BROWN)
1932, 97, 183
- Ethyl esters, carotene stability (MCDONALD)
1933, 100, lix

Fatty acid(s)—continued:

- Glycerides, vitamin B-sparing action, effect (EVANS and LEPKOVSKY)
1932, 96, 179
- α -Hydroxy, oxidation, *in vitro* (WITZEMANN)
1931, 92, xxxii
- , —, potassium permanganate (WITZEMANN)
1932, 95, 219
- , shift in point of rupture (WITZEMANN)
1931, 92, xxxii
1932, 95, 247
- Liver lecithin (SNIDER and BLOOR)
1932, 97, xxxiii
1932-33, 99, 555
- Lower volatile, feces, diet and catharsis effect (GROVE, OLMSTED, and KOENIG)
1929-30, 85, 127
- —, —, distillation (OLMSTED, DUDEN, WHITAKER, and PARKER)
1929-30, 85, 115
- —, steam distillation, saturated salt solution (OLMSTED, WHITAKER, and DUDEN)
1929-30, 85, 109
- Nutrition (BURR, BURR, and MILLER)
1932, 97, 1
- , nature and rôle (BURR and BURR)
1930, 86, 587
- , rôle (BURR, BURR, and MILLER)
1931, 92, xxxvi
- Phospholipid, blood, lactation cycle (MAYNARD, HARRISON, and McCAY)
1931, 92, 263
- , tissue, diet influence (SINCLAIR)
1930, 86, 579
- Saturated, fat-high diets with, as energy source (EVANS and LEPKOVSKY)
1932, 96, 157

Fatty acid(s)—continued:

Saturated, lipid solubility, permeability, and hemolytic action (BODANSKY)

1928, 79, 241

Sugar formation from, pancreatotomy, epinephrine effect (CHAIKOFF and WEBER)

1928, 76, 813

Total, blood, lactation cycle (MAYNARD, HARRISON, and McCAY)

1931, 92, 263

Unsaturated, diet deficient in, gas exchange, effect (BURR and BEBER)

1932, 97, xxxvi

—, essential, synthesis by body (EVANS and LEFKOVSKY)

1932-33, 99, 231

—, highly, brain (BROWN)

1931, 92, lxxxviii

—, —, —, beef, hog, and sheep (BROWN and AULT)

1930, 89, 167

—, —, — lipids, new (BROWN)

1929, 83, 783

—, —, butter (ECKSTEIN)

1932, 97, xxxv

—, —, lard, menhaden oil-fed pigs (BROWN)

1931, 90, 133

—, —, liver lipids (BROWN)

1928, 80, 455

—, tissue, animal, composition (SMITH)

1931, 92, xxxv

—, — distribution (BLOOR)

1928, 80, 443

—, vital need (EVANS and LEFKOVSKY)

1932, 96, 143, 157

1932-33, 99, 231

—, — organs, beef (BLOOR)

1928, 80, 443

Fatty acid(s)—continued:

Volatile, carotene oxidation (SMITH and SPOHR)

1930, 86, 755

—, water retention, relationship (McCLENDON)

1930, 87, vii

—, xanthophyll oxidation (SMITH and SPOHR)

1930, 86, 755

Fatty acid esters: Nutritive value (Cox)

1932, 97, xxxvii

Feces: Bacteria lipids, partition (SPERRY)

1929, 81, 299

Estrin occurrence (GUSTAVSON)

1931, 92, lxxi

Fatty acids, volatile, lower, diet and catharsis effect

(GROVE, OLMSTED, and KOENIG)

1929-30, 85, 127

—, —, —, distillation (OLMSTED, DUDEN, WHITAKER, and PARKER)

1929-30, 85, 115

Hydrogen ion concentration, rickets (SHOHL and BING)

1928, 79, 269

Lipids, bile fistula, partition (SPERRY)

1929-30, 85, 455

—, distribution (SPERRY)

1928, 78, xliv

—, partition (SPERRY)

1929, 81, 299

Reaction, vitamin D and (BACHARACH and JEPHCOTT)

1929, 82, 751

Yeast ingestion effect (PIERCE)

1932, 98, 509

See also Coprophagy.

Feedingstuff: Copper (ELVEHJEM and HART)

1929, 82, 473

Feedingstuff—continued:

Iron (SKINNER and PETERSON)
1928, 79, 679

Manganese (SKINNER and PETERSON)
1928, 79, 679

See also Foodstuff.

Femur: Ash, ergosterol, irradiated, effect (JONES and ROBINSON)
1931, 91, 43

Fermentation: (*See note on p. 173*)

Gas, determination, manometric (RAYMOND)
1929, 83, 611

Ferricyanide: Blood sugar method (FOLIN) 1929, 81, 231

Oxidation of unsaturated compounds, catalyst (WRIGHT, CONANT, and KAMERLING)
1931-32, 94, 411

Sugars, reducing rate (ARIYAMA and SHAFER) 1928, 78, li

Ferrocyanide ion: Resorption, proteins, coagulated (HENDRIX)
1928, 78, 653

Fertility: Dietary requirements (SURE)

1928, 76, 659, 673, 685

1928, 80, 289, 297

(SURE and WALKER)

1931, 91, 69

Feterita: Prolamin (JONES and CSONKA) 1930, 88, 305

Fetus: Fat, fat-high and -low diets, influence (CHAIKOFF and ROBINSON)

1933, 100, 13

Tissue, hydrogen ion concentration (MILLET)

1928, 78, 281

Fibrin: Transport numbers (GREENBERG) 1928, 78, 265

Fibrinogen: Combining power, acid denaturation (FAY and HENDRIX) 1931, 93, 667

Solubility, salt solutions (FLORKIN) 1930, 87, 629

Fibroin: Silk, amino acids, basic (VICKERY and BLOCK)

1931, 93, 105

Ficin: Enzyme, proteolytic, in (ROBBINS) 1930, 87, 251

Fish: Ammonia excretion, gills (SMITH) 1929, 81, 727

Arginase distribution (HUNTER) 1929, 81, 505

Blood concentration (HALL)
1928, 76, 623

— hemoglobin (HALL and GRAY) 1929, 81, 589

— phosphorus, blood sugar, and hemoglobin, distribution (McCAY) 1931, 90, 497

— plasma and serum proteins, distribution (LEPKOVSKY)
1929-30, 85, 667

— reducing substances (WHITE)
1928, 77, 655

Glycogen distribution, insulin influence (ROOT, HALL, and GRAY) 1931, 91, 27

Muscle creatine (HUNTER)
1929, 81, 513

— dehydrogenase, compounds of arsenic, selenium, and tellurium, effect (COLLETT, RHEINBERGER, and LITTLE)
1933, 100, 271

— —, poison effect (COLLETT and CLARK) 1929, 82, 429

—, hydrogen ion concentration (BENSON) 1928, 78, 583

Urea excretion, gills (SMITH)
1929, 81, 727

See also Cod, Cunner, Dogfish. Lung-fish, Monkfish, Trout.

- Fish liver oils:** Natural, vitamin D, irradiated ergosterol and yeast, comparison (STEENBOCK, KLETZIEN, and HALPIN) 1932, 97, 249
- Toxic effect and vitamin B action (NORRIS and CHURCH) 1930, 89, 437
- Fish oil:** Vitamin A, biological and colorimetric assays, comparison (NORRIS and DANIELSON) 1929, 83, 469
- — determination (BILLS) 1933, 100, xv
- Flaxseed:** Mucilage, *l*-galactose preparation (ANDERSON) 1933, 100, 249
- Flour:** White, hemoglobin regeneration, influence (ROSE and VAHLTEICH) 1932, 96, 593
- Whole wheat, hemoglobin regeneration, influence (ROSE and VAHLTEICH) 1932, 96, 593
- Flour beetle:** Vitamin requirements (SWEETMAN and PALMER) 1928, 77, 33
- Fluorine:** Bones, effect (MCCLURE and MITCHELL) 1931, 90, 297
- Calcium metabolism, effect (MCCLURE and MITCHELL) 1931, 90, 297
- Folin-Wu:** Carbohydrate reduction, Hagedorn-Jensen, Benedict-Myers, comparison (PUCHER and FINCH) 1928, 76, 331
- Food:** Consumption, growth influence (PALMER and KENNEDY) 1930, 87, xlv
- 1931, 90, 545
- Food—continued:**
- Copper (LINDOW, ELVEHJEM, and PETERSON) 1929, 82, 465
- Efficiency quotient, growth influence (PALMER and KENNEDY) 1930, 87, xlv
- 1931, 90, 545
- Fatty, iodine determination (MCCLENDON, MATHIESON, and HYNES) 1928, 78, xlv
- Growth requirements (KENNEDY and PALMER) 1928, 76, 591, 607
- (PALMER and KENNEDY) 1930, 87, xlv
- 1931, 90, 545
- Hemoglobin regeneration, factors influencing (ROSE and VAHLTEICH) 1932, 96, 593
- (ROSE and KUNG) 1932, 98, 417
- Intake, parathyroidectomy, dietary calcium and phosphorus, effect (SHELLING) 1932, 96, 195
- Iodine determination (BAUMANN and METZGER) 1932, 97, xc
- 1932, 98, 405
- Iron (PETERSON and ELVEHJEM) 1928, 78, 215
- Specific dynamic action, snake, king (KOCHER) 1932, 97, lxxi
- Utilization, vitamins B₁ and B₂ effect (GRIFFITH and GRAHAM) 1932, 97, vii
- See also* Diet, Feedingstuff, Foodstuff, Ration.
- Foodstuff:** Blood lipid, influence (MCCLURE and HUNT-SINGER) 1928, 76, 1
- See also* Feedingstuff.

Formaldehyde: Amino acids, amine formation (ZELENY and GORTNER)

1931, 90, 427

Oxidation, catalytic (DEGERING) 1932, 95, 409

Formalin: Fixation, lipids, central nervous system (WEIL) 1929, 83, 601

Formic acid: Oxidation, catalytic (DEGERING) 1932, 95, 409

Formol: Titration, equilibria (LEVY) 1932-33, 99, 767

—, titration constants, amino acids (LEVY) 1932, 97, xcii

Freezing point: Depression, determination, aqueous solutions (STADIE and SUNDERMAN) 1931, 91, 217

Determination, physiological solutions (JOELIN) 1931, 91, 551

Fructose: Activation, sucrose enzymatic hydrolysis (RONZONI) 1930, 87, xxxiii

Ketolytic action, other sugars, comparison (DEUEL, GULICK, and BUTTS) 1932, 98, 333

Utilization, insulin influence (CORI and CORI) 1928, 76, 755

See also Levulose.

d-Fructose: d-Glucose transformation by pyridine (AUSTIN and PRUSAIT) 1932, 97, lxxx

Fruit: Antiscorbutic property, drying and sulfur dioxide effect (MORGAN and FIELD) 1929, 82, 579

Fruit—continued:

Vitamin A, drying and sulfur dioxide effect (MORGAN and FIELD) 1930, 88, 9

L-Fucose: D-Mannose separation, seaweed (MANSKE) 1930, 86, 571

Fullers' earth: Adsorption, quinine, oxalate, and glucose (GUERRANT and SALMON) 1928, 80, 67

Ergosterol, isomerization (McDONALD and BILLS) 1930, 88, 601

Vitamin B factors, adsorption, hydrogen ion concentration influence (SALMON, GUERRANT, and HAYS) 1928, 80, 91

Fumarate: Succinate-enzyme-, equilibrium, enzyme rôle (BORSOOK and SCHOTT) 1931, 92, 535

Fungus: Cultures, enzyme, determination (KERTESZ) 1931, 90, 15

G

Galactose: Antiketogenic value, glucose and, relative (DEUEL, GULICK, and BUTTS) 1931, 92, xxiii

Blood, determination (HARDING and GRANT) 1931-32, 94, 529

— sugar, cutaneous, ingestion effect (HARDING and GRANT) 1932-33, 99, 629

— —, ingestion effect (HARDING and VAN NOSTRAND) 1929-30, 85, 765

Galactose—continued:

- Determination, reagent (HARDING, NICHOLSON, and GRANT) 1932-33, 99, 625
- Diacetone, ring structure (LEVENE and MEYER) 1931, 92, 257
- Ketolytic action, other sugars, comparison (DEUEL, GULICK, and BUTTS) 1932, 98, 333
- Metabolism (BLANCO) 1928, 79, 667 (HARDING and GRANT) 1932-33, 99, 629
- , insulin effect (ROE and SCHWARTZMAN) 1932, 96, 717
- Tolerance, dextrose and levulose, simultaneous administration, effect (CORLEY) 1928, 76, 31
- , normal and diabetic subjects (ROE and SCHWARTZMAN) 1932, 96, 717
- Urine, determination (HARDING and GRANT) 1931-32, 94, 529
- , galactose ingestion effect (HARDING and MOBERLEY) 1930, 89, 535
- sugar, ingestion effect (HARDING and VAN NOSTRAND) 1929-30, 85, 765
- Utilization, liver removal (POWER) 1932, 97, lxxxiii
- l*-Galactose: Flaxseed mucilage, preparation (ANDERSON) 1933, 100, 249
- Galactose-6-phosphate: (LEVENE and RAYMOND) 1931, 92, 765

***d*-Galacturonic acid: Preparation (LINK and NEDDEN)**

- 1931-32, 94, 307
- Lemon pectic acid, preparation (LINK and DICKSON) 1930, 86, 491
- dl*-Galacturonic acid: Mucic acid synthesis (NIEMANN and LINK) 1932, 95, 203
- Galacturonide: Methyl-*d*-, preparation (MORELL and LINK) 1933, 100, 385
- Gallstone: Composition (PICKENS, SPANNER, and BAUMAN) 1932, 95, 505
- Solubility, bile, dog (PICKENS, SPANNER, and BAUMAN) 1932, 95, 505
- Gas: Analysis apparatus, acetone as control substance (CARPENTER, FOX, and SEREQUE) 1929, 82, 335
- —, Haldane, Carpenter form (CARPENTER, FOX, and SEREQUE) 1929, 83, 211
- Blood, electrolyte and, equilibrium (VAN SLYKE, SENDROY, HASTINGS, and NEILL) 1928, 78, 765 (VAN SLYKE and SENDROY) 1928, 78, 801 (HASTINGS, SENDROY, and VAN SLYKE) 1928, 79, 183 (HASTINGS, SENDROY, MCINTOSH, and VAN SLYKE) 1928, 79, 193 (VAN SLYKE, HASTINGS, HILLER, and SENDROY) 1928, 79, 769 (VAN SLYKE and SENDROY) 1928, 79, 781 (VAN SLYKE and HAWKINS) 1930, 87, 265

Gas—continued:

Exchange, fatty acids, unsaturated, diet deficient in, effect (BURR and BEBER)

1932, 97, xxxvi

Fermentations, determination, manometric (RAYMOND)

1929, 83, 611

Mixtures, carbon dioxide determination by absorption (VAN SLYKE and SENDROY)

1932, 95, 509

—, — — — by isolation (VAN SLYKE, SENDROY, and LIU)

1932, 95, 531

—, — monoxide determination by absorption with blood (SENDROY)

1932, 95, 599

—, hydrogen determination by absorption, Paal's picrate-palladium solution (VAN SLYKE and HANKE)

1932, 95, 587

—, — — — combustion (VAN SLYKE and HANKE)

1932, 95, 569

—, manometric analysis (VAN SLYKE and SENDROY)

1932, 95, 509

(VAN SLYKE, SENDROY, and LIU)

1932, 95, 531, 547

(VAN SLYKE and HANKE)

1932, 95, 569, 587

(SENDROY)

1932, 95, 599

—, nitrogen determination by absorption (VAN SLYKE and SENDROY)

1932, 95, 509

—, — — — combustion (VAN SLYKE and HANKE)

1932, 95, 569

Gas—continued:

Solubility, blood and blood fluids (GROLLMAN)

1929, 82, 317

Gastric: *See* Stomach.

Gastrointestinal tract: Absorption, phlorhizin effect (WILSON)

1932, 97, 497

Hydrogen ion concentration, diet and rickets, relation (GRAYZEL and MILLER)

1928, 76, 423

Temperature (EBERHARD, RICKETTS, RIEGER, and HEPBURN)

1931, 92, lxxxviii

(HEPBURN, EBERHARD, RICKETTS, and RIEGER)

1932, 97, xliii

Gelatin: Dye and, reaction, stoichiometrical relations (STEARN)

1931, 91, 325

Granules, dyes, combination (RAWLINS and SCHMIDT)

1930, 88, 271

Isoelectric point (HITCHCOCK)

1931, 92, xlii

—, minimum physical properties, relation (JOHLIN)

1930, 86, 231

Nutritive properties (JACKSON, SOMMER, and ROSE)

1928, 80, 167

(JONES and NELSON)

1931, 91, 705

Optical activity, neutral salts action (JOHLIN)

1931, 92, 751

Solutions, interfacial adsorption, solution concentration and hydrogen ion concentration, relation (JOHLIN)

1930, 87, xix

Gelatin—*continued*:

Solutions, surface tension, solution concentration and hydrogen ion concentration, sessile bubble method, influence (JOHLIN)

1930, 87, 319

Gitoxigenin: (JACOBS and GUSTUS)

1928, 79, 553

1929, 82, 403

(JACOBS and ELDERFIELD)

1932-33, 99, 693

Digitoxigenin, correlation (JACOBS and GUSTUS)

1930, 86, 199

Dihydro-, isomeric (JACOBS and ELDERFIELD)

1933, 100, 671

Iso- (JACOBS and GUSTUS)

1928, 79, 553

1929, 82, 403

Isomerization (JACOBS and GUSTUS)

1930, 88, 531

Oxidation (JACOBS and GUSTUS)

1930, 88, 531

Periplogenin, correlation (JACOBS and ELDERFIELD)

1931, 92, 313

Strophanthidin, correlation (JACOBS and ELDERFIELD)

1931, 92, 313

Gland: Extirpation, cancer, effect (BISCHOFF, MAXWELL, and ULLMANN)

1931, 92, lxxx

Glass: Electrode potentials, measurement (FOSBINDER and SCHOONOVER)

1930, 88, 605

—, vacuum tube potentiometer for (DuBois)

1930, 88, 729

Globulin: Blood serum, albumin transformation (HOOKER and BOYD)

1933, 100, 187

— —, alkali bound by (VAN SLYKE, HASTINGS, HILLER, and SENDROY)

1928, 79, 769

— —, antipneumococcus, fractional precipitation, varying hydrogen ion concentration (REINER and REINER)

1932, 95, 345

— —, determination (LOONEY)

1932, 97, xxvi

— —, fractional precipitation, varying hydrogen ion concentration (REINER and REINER)

1932, 95, 345

Crystalline, banana seeds (KEENAN and WILDMAN)

1930, 88, 425

—, milk, from albumin fraction (PALMER)

1933, 100, lxxv

Muscle, physical chemistry (EDSALL)

1930, 89, 289

(VON MURALT and EDSALL)

1930, 89, 315, 351

—, physicochemical properties (EDSALL)

1930, 89, 289

Sweet potato (JONES and GERSDORFF)

1931, 93, 119

Glomerulus: Indigo carmine elimination, frog (RICHARDS and WALKER)

1930, 87, 479

Phenol red elimination, frog (RICHARDS and WALKER)

1930, 87, 479

Urea elimination, frog (WALKER and ELSOM)

1931, 91, 593

Urine, chlorides, frog (FREEMAN, LIVINGSTON, and RICHARDS)

1930, 87, 467

Glomerulus—continued:

- Urine, electrical conductivity,
frog and *Necturus* (BAYLISS
and WALKER) 1930, 87, 523
- , molecular concentration,
total, blood plasma, com-
parison, frog and *Necturus*
(WALKER) 1930, 87, 499
- , reducing substances and
phosphates, frog and *Nec-
turus* (WALKER, ELLINWOOD,
and REISINGER) 1932, 97, lxxii
- , uric acid determination,
frog and snake (BORDLEY
and RICHARDS) 1932, 97, lxxii
- Glucal(s):** Aceto-, preparation
(LEVENE and RAYMOND) 1931, 90, 247
- d*-Hydro-, blood sugar, influ-
ence (FREUDENBERG) 1932-33, 99, 647
- d*-2-Oxy-, metabolism rate
(FREUDENBERG and FEL-
TON) 1932-33, 99, 657
- Substituted, perbenzoic acid
action (LEVENE and RAY-
MOND) 1930, 88, 513
(LEVENE and TIPSON) 1931, 93, 631
- d*-Glucal: Blood sugar, influence
(FREUDENBERG) 1932-33, 99, 647
- Glucides:** Ketose, test (TASHIRO
and TIETZ) 1930, 87, 307
- Levulose, test (TASHIRO and
TIETZ) 1930, 87, 307
- Glucoarabonic acid:** Lactone for-
mation, cellobiose structure,
relation (LEVENE and WOL-
FROM) 1928, 77, 671

- d*-2-Glucodesose: Blood sugar,
influence (FREUDENBERG) 1932-33, 99, 647
- Glucodesoside:** Methyl-, ring
structure (LEVENE and MI-
KESKA) 1930, 88, 791
- Theophylline-*d*- (LEVENE and
CORTESE) 1931, 92, 53
- Glucomaltase:** Mammary gland
(KLEINER and TAUBER) 1932-33, 99, 241
- Gluconic acid:** Production, *Peni-
cillium luteum-purpurogenum*
group (HERRICK and MAY) 1928, 77, 185
- Glucose:** Absorption, gastro-
intestinal tract, gossypol
effect (GALLUP and REDER) 1931-32, 94, 221
- rate, gastrointestinal tract
(TRIMBLE, CAREY, and MAD-
DOCK) 1933, 100, 125
- Active, formation, glucose oxi-
dation, effect (ORT and
ROEPKE) 1931, 92, xix
- , hydrogen ion concentra-
tions, biological (ORT) 1930, 87, xxxiv
- Adsorption, fullers' earth and
norit (GUERRANT and SAL-
MON) 1928, 80, 67
- Antiketogenic value, galactose
and, relative (DREUEL, GUL-
ICK, and BUTTS) 1931, 92, xxiii
- Blood chloride, ingestion ef-
fect (MOSENTHAL and BRUG-
ER) 1932, 97, lxxxiii
- , determinations, collection
and preservation of samples
(EWING) 1932, 97, cvii
- , human, distribution (MAC-
KAY) 1932, 97, 685

Glucose—continued:

- Blood non-protein nitrogen, total, ingestion effect (MOSENTHAL and BRUGER) 1932, 97, lxxxiii
- phosphate curves, effect (McCULLAGH) 1931, 92, xvi
- urea, ingestion effect (MOSENTHAL and BRUGER) 1932, 97, lxxxiii
- 1-Bromotetramethyl-, glycosides, methylated, use in synthesis (LEVENE and CORTESE) 1932, 98, 17
- Determination, formose reaction, urea effect (LARSON) 1932, 98, 151
- Dihydroxyacetone and, metabolism effect, comparison (McCLELLAN, BIASOTTI, and HANNON) 1928, 78, 719
- Epinephrine-liberated, pancreatotomy, origin (BOLLMAN, MANN, and WILHELMJ) 1931, 93, 83
- Fermentation, carbon dioxide formation and sugar disappearance, comparison (HAWKINS and VAN SLYKE) 1929, 84, 243
- Glycogenesis, fasting dog (DANN and CHAMBERS) 1932, 95, 413
- Insulin and, blood sugar and respiratory metabolism curves (RABINOWITCH and BAZIN) 1928, 80, 723
- Ketolytic action, other sugars, comparison (DEUEL, GULICK, and BUTTS) 1932, 98, 333

Glucose—continued:

- Lactic acid cycle, diabetes (HIMWICH, CHAMBERS, KOSKOFF, and NAHUM) 1931, 90, 417
- — —, muscle and liver (HIMWICH, KOSKOFF, and NAHUM) 1929-30, 85, 571
- Metabolism, fasting (DANN and CHAMBERS) 1930, 89, 675
- 1933, 100, 493
- 3-Methyl-*d*-, γ -glucoside of (LEVENE and DILLON) 1931, 92, 769
- 5-Methyl-, Ohle and von Vargha, chemical constitution (LEVENE and RAYMOND) 1932, 97, 751
- Monomethyl, Pacsu (LEVENE, MEYER, and RAYMOND) 1931, 91, 497
- Non-, blood and plasma sugar (HUBBARD and DEEGAN) 1928, 78, lvii
- , reducing substances, blood, colon bacillus action (HUBBARD and DEEGAN) 1930, 86, 575
- Oxidation, active glucose formation effect (ORT and ROEPKE) 1931, 92, xix
- , borate effect (LEVY and DOISY) 1928, 77, 733
- , phlorhizin glycosuria (BOOTHBY, WILHELMJ, and WILSON) 1929, 83, 657
- Substitution, position (4) (LEVENE and RAYMOND) 1932, 97, 763
- Tolerance, alkali deficit and (DEUEL and GULICK) 1930, 89, 93

Glucose—continued:

- Tolerance, avitaminosis, anti-neuritic vitamin (LEPKOVSKY, WOOD, and EVANS) 1930, 87, 239
- curves, phlorhizinized dog, glucose effect (DEUEL) 1930, 87, xxxvi
- , phlorhizin diabetes, nutrition and (DEUEL) 1930, 89, 77
- , vitamin B deprivation (BURACK and COWGILL) 1932, 96, 685
- Urine, lactose and, determination (KLEINER and TAUBER) 1933, 100, 749
- , nephritis (HAWKINS, MACKAY, and VAN SLYKE) 1928, 78, xxiii
- , normal (HAWKINS, MACKAY, and VAN SLYKE) 1928, 78, xxiii
- , —, determination, Folin method (HAMILTON) 1928, 78, 63
- Utilization, epinephrine effect (CORI and CORI) 1928, 79, 343
- , insulin influence (CORI and CORI) 1928, 76, 755
- Water retention relation (McCLENDON) 1931, 92, xix
- See also* Dextrose.
- d*-Glucose: *d*-Fructose, transformation by pyridine (AUSTIN and PRUSAIT) 1932, 97, lxxx
- Oxidation, catalytic (DEGERING and UPSON) 1931-32, 94, 423
- Glucose cycloacetoacetic acid: Metabolism (WEST and SCHARLES) 1928, 78, liv

Glucose pentabenzoates: (LEVENE and MEYER)

1928, 76, 513

Glucose-3-phosphate: Robison ester, structure relation (LEVENE and RAYMOND)

1930, 89, 479

Glucose-6-phosphate: Robison ester, structure relation (LEVENE and RAYMOND)

1930, 89, 479

Glucoside: Digitalis (JACOBS and GUSTUS)

1928, 78, 573

1928, 79, 553

1929, 82, 403

1930, 86, 199

1930, 88, 531

(JACOBS and ELDERFIELD)

1932-33, 99, 693

Monoacetone γ -methyl- (LEVENE and MEYER)

1928, 79, 357

Monoses, formation from (LEVENE, RAYMOND, and DILLON)

1932, 95, 699

***d*-Glucoside: *d*- and *l*-methyl-*n*-hexylcarbinol, emulsin hydrolysis (MITCHELL)**

1929, 82, 727

 γ -Glucoside: 3-Methyl-*d*-glucose (LEVENE and DILLON)

1931, 92, 769

Glucuron: Acetylation (GOEBEL and BABERS)

1933, 100, 743

Glucuronic acid preparation (GOEBEL and BABERS)

1933, 100, 573

Reducing values, glucuronic acid and, comparison (GOEBEL and BABERS)

1933, 100, 573

- Glucuronic acid:** Conjugated, metabolism (QUICK) 1928, 80, 535
 Derivatives (GOEBEL and BABERS) 1933, 100, 573, 743
 Preparation from glucuron (GOEBEL and BABERS) 1933, 100, 573
 Production, acetoacetic acid effect (QUICK) 1932, 98, 537
 —, insulin effect (QUICK) 1932, 98, 537
 —, scurvy (QUICK) 1933, 100, 441
 Reducing values, glucuron and, comparison (GOEBEL and BABERS) 1933, 100, 573
Glukhormont: Synthalin, similarity (BISCHOFF, BLATHERWICK, and SAHYUN) 1928, 77, 467
Glutamic acid: Activity coefficient (HOSKINS, RANDALL, and SCHMIDT) 1930, 88, 215
 Anemia, effect (RIDER) 1933, 100, 243
 —, nutritional, iron supplement, effect (ELVEHJEM, STEENBOCK, and HART) 1931, 93, 197
 Conductance (HOSKINS, RANDALL, and SCHMIDT) 1930, 88, 215
 Dissociation constants (HARRIS) 1929, 84, 179
 Insulin, crystalline, isolation (JENSEN and WINTERSTEINER) 1932, 97, 93
 Monosodium salts, conductance and activity coefficients (HOSKINS, RANDALL, and SCHMIDT) 1930, 88, 215
 Nutrition, relation (BUNNEY and ROSE) 1928, 76, 521
Glutamic acid—continued:
 Proteins, determination (JONES and MOELLER) 1928, 79, 429
 Solubility, organic solvents and water (PERTZOFF) 1933, 100, 97
 Synthesis (DUNN, SMART, REDEMANN, and BROWN) 1931–32, 94, 599
d-Glutamic acid: Free energy (BOROOK and HUFFMAN) 1932–33, 99, 663
Glutathione: Blood (BENEDICT and NEWTON) 1929, 83, 361
 (HOPKINS) 1929, 84, 269
 (SCHELLING) 1932, 96, 17
 —, determination (WOODWARD and FRY) 1932, 97, 465
 (BENEDICT and GOTTSCHALL) 1932–33, 99, 729
 Chemical constitution (KENDALL, MASON, and MCKENZIE) 1930, 87, 55
 (NICOLET) 1930, 88, 389
 (KENDALL, MASON, and MCKENZIE) 1930, 88, 409
 Cleavage, aqueous solution (MASON) 1931, 90, 25
 Crystalline (KENDALL, MASON, and MCKENZIE) 1930, 87, xli
 —, oxidation, copper effect (VOEGTLIN, JOHNSON, and ROSENTHAL) 1931, 93, 435
 —, preparation (KENDALL, MCKENZIE, and MASON) 1929, 84, 657
 Identification (KENDALL, MCKENZIE, and MASON)

Glutathione—continued:

- Insulin, crystalline, inactivation (DU VIGNEAUD, FITCH, PEKAREK, and LOCKWOOD) 1931-32, 94, 233
- Oxidized, preparation (MASON) 1931, 90, 409
- Oxidizing power (KENDALL) 1928, 78, xl
- Reduced, tissues, determination (MASON) 1930, 86, 623
- Reducing action (EVERETT) 1930, 87, 761
- power (KENDALL) 1928, 78, xl
- Titration curve (PIRIE and PINHEY) 1929, 84, 321
- Glutelins:** (CSONKA, HORN, and JONES) 1930, 87, xviii
- (CSONKA and JONES) 1931, 92, xxxix
- Cereals (CSONKA and JONES) 1929, 82, 17
- (CSONKA, HORN, and JONES) 1930, 89, 267
- Corn (JONES and CSONKA) 1928, 78, 289
- Cystine, tryptophane, and tyrosine (CSONKA) 1932, 97, 281
- Glutenin:** Wheat, nature and identity (BLISH and SANDSTEDT) 1929-30, 85, 195
- Glucose:** Formation, hexose interconversion, phosphates (SPOHR and STRAIN) 1929-30, 85, 365
- Glycerol:** Glycogen formation, liver, effect (CATRON and LEWIS) 1929, 84, 553
- α -Glycerophosphate:** (KARRER and SALOMON) 1931, 93, 407

 α -Glycerophosphate—continued:

- Enzyme hydrolysis (KAY and LEE) 1931, 91, 135
- β -Glycerophosphate:** (KARRER and SALOMON) 1931, 93, 407
- (KAY) 1931, 93, 409
- Enzyme hydrolysis (KAY and LEE) 1931, 91, 135
- Glycidol acetate:** (LEVENE and WALT) 1928, 79, 363
- Glycine:** Acetyl-, aromatic aldehydes, condensation with (DAKIN) 1929, 82, 439
- Aromatic aldehydes, condensation with (DAKIN) 1929, 82, 439
- Bile salt metabolism effect (WHIPPLE and SMITH) 1930, 89, 705
- Cupric complexes (BORSOOK and THIMANN) 1932, 98, 671
- Ethyl ester, dissociation constant, apparent (EMERSON and KIRK) 1930, 87, 597
- Glycyl-, synthesis (DUNN, BUTLER, and DEAKERS) 1932-33, 99, 217
- Metabolism effect (ADAMS) 1933, 100, iii
- Muscle and neuromuscular disease, effect (BRAND and HARRIS) 1933, 100, xx
- dystrophy, pseudohypertrophic, effect (CHANUTIN, BUTT, and ROYSTER) 1933, 100, xxvi
- Origin, investigation method (GRIFFITH) 1929, 82, 415
- Specific dynamic action, normal and adrenalectomized dog, effect (NORD and

Glycine—continued:

Synthesis (GRIFFITH)
1929-30, 85, 751

—, protein intake, relation
(GRIFFITH) 1930, 87, xiii

Uric acid, endogenous, ex-
cretion, ingestion effect
(CHRISTMAN and MOSIER)
1929, 83, 11

Glycogen: Abalone (PETREE and
ALSBERG) 1929, 82, 385

Adsorption (BANCROFT and
FRY) 1933, 100, 255

Determination (GOOD, KRAM-
ER, and SOMOGYI)
1933, 100, 485

Distribution, epinephrine in-
fluence (BLATHERWICK and
SAHYUN) 1929, 81, 123
(SAHYUN and LUCK)
1929-30, 85, 1

—, insulin influence (BLATHER-
WICK and SAHYUN)
1929, 81, 123
(SAHYUN and LUCK)
1929-30, 85, 1

Fish, insulin influence (ROOT,
HALL, and GRAY)
1931, 91, 27

Formation, amino acid inges-
tion (WILSON and LEWIS)
1929-30, 85, 559

—, *d*-xylose ingestion effect
(MILLER and LEWIS)
1932, 98, 133

Hydrolysis (BANCROFT and
FRY) 1933, 100, 255

—, acids and taka-diastrase
(SAHYUN and ALSBERG)
1931, 93, 235

—, enzyme (BARBOUR)
1929-30, 85, 29

Liver (SAHYUN and ALSBERG)
1930, 89, 33

Glycogen—continued:

Liver, epinephrine effect (CORI,
CORI, and BUCHWALD)
1930, 86, 375

—, formation, epinephrine in-
fluence (CORI and CORI)
1929-30, 85, 275

—, — from *d*- and *l*-lactic acid
(CORI and CORI)
1929, 81, 389

—, —, glycerol administration
(CATRON and LEWIS)
1929, 84, 553

—, —, insulin effect (CORI and
CORI) 1929-30, 85, 275

—, insulin effect (CORI, CORI,
and BUCHWALD)
1930, 86, 375
(BODO and NEUWIRTH)

1931, 92, xxv
—, preparation (SAHYUN and
ALSBERG) 1930, 89, 33

—, sexual variation (DEUEL)
1933, 100, xxxv

—, water storage, relation
(BRIDGE and BRIDGES)
1931, 93, 181
(PUCKETT and WILEY)

1932, 96, 367
(MACKAY and BERGMAN)
1932, 96, 373

(BRIDGE and BRIDGES)
1932, 96, 381

Muscle, from *d*-lactic acid,
exercise effect (LONG and
HORSFALL) 1932, 95, 715

—, mammalian, carbohydrate,
total, and (CORI and CORI)
1933, 100, 323

—, —, contraction and recov-
ery (CORI and CORI)
1932-33, 99, 493

Glycogen—continued:

Muscle, tetanus toxin, shortening effect (DAVENPORT, DAVENPORT, and RANSON) 1929, 82, 499

Preparation (PETREE and ALSEBERG) 1929, 82, 385

Resynthesis, fasted rat, exercise effect (LONG and GRANT) 1930, 89, 553

Storage, phlorhizin effect, ligated ureters (NASH) 1929, 83, 139

Tissue, determination (OSTERBERG) 1929-30, 85, 97 (SAHYUN) 1931, 93, 227

Glycogenesis: Glucose, fasting (DANN and CHAMBERS) 1932, 95, 413

Glycols: Chemical constitution, from reduction with fermenting yeast (LEVENE and WALTI) 1931-32, 94, 361

Glycolysis: Blood, arsenate effect (MORGULIS and PINTO) 1932, 95, 621

(BRAUNSTEIN) 1932, 98, 379

(MORGULIS and PINTO) 1932, 98, 385

— cell, red, methylene blue and dye effect (BARRON and HARROP) 1928, 79, 65

— —, white, methylene blue effect (BARRON) 1929, 84, 83

— optical activity and lactic acid relationship, effect (WRIGHT, HERR, and PAUL) 1928, 80, 571

Enzyme, pancreatic juice

Glycolysis—continued:

Muscle tissue and extract, pancreas inhibitor effect (RONZONI, GLASER, and BARR) 1928, 80, 309

Pancreas extract inhibitory action (RONZONI, GLASER, and BARR) 1928, 80, 309

(BARR, RONZONI, and GLASER) 1928, 80, 331

Tumors, malignant, pancreas inhibitor effect (BARR, RONZONI, and GLASER) 1928, 80, 331

Glycosides: Digitalis (JACOBS and ELDERFIELD) 1933, 100, 671

Methyl-, hexuronic acids, naturally occurring (MORELL and LINK) 1933, 100, 385

Methylated, synthesis, 1-bromotetramethylglucose for (LEVENE and CORTESE) 1932, 98, 17

γ -Glycosides: Chemical constitution (LEVENE, RAYMOND, and DILLON) 1932, 96, 449

Glycosuria: Phlorhizin, glucose oxidation (BOOTHBY, WILHELMJ, and WILSON) 1929, 83, 657

—, metabolism, thyroidectomy effect (DANN, CHAMBERS, and LUSK) 1931-32, 94, 511

Glycylcysteic acid: Synthesis (WHITE) 1933, 100, civ

Glycylglycine: Synthesis (DUNN, BUTLER, and DEAKERS) 1932-33, 99, 217

Glycyltaurine: Synthesis (WHITE) 1933, 100, civ

Glycyltyrosine: Titration constants (GREENSTEIN)

Glyoxal(s): (ARIYAMA)

1928, 77, 359

Methyl-, formation, *Clostridium acetobutylicum* (PETT and WYNNE) 1932, 97, 177

—, —, hexosephosphate, tissues (ARIYAMA)

1928, 77, 395

Goiter: Diet relation (LEVINE)

1932, 97, c

(REMINGTON) 1932, 97, ci

Dietary technique (LEVINE)

1932, 97, c

Involution, mineral metabolism (BAUMANN, KURLAND, and METZGER)

1931-32, 94, 383

Region (Detroit), blood, pathological, iodine (TURNER) 1932, 97, civ

Simple, involution, inorganic salt metabolism (BAUMANN)

1931, 92, lxxx

Gonad: -Stimulating substance, pituitary, anterior, fractionation (WALLEN-LAWRENCE)

1933, 100, xevii

Gonococci: α -Hydroxyoxidase, lactic acid oxidation, mechanism (BARRON and HASTINGS)

1932, 97, lxxiii

Oxidations by (BARRON and MILLER) 1932, 97, 691

Goosefish: Body fluids, composition (SMITH) 1929, 82, 71

Urine, nitrogenous constituents, trimethylamine oxide (GROLLMAN) 1929, 81, 267

Gorgonia cavolinii: See Coral.**Gossypol:** Apo- (CLARK)

1928, 78, 159

Avitaminosis, effect (GALLUP)

1931, 93, 381

Gossypol—continued:

Carbohydrate digestibility, effect (GALLUP and REDER)

1931-32, 94, 221

D, Carruth, nature (CLARK)

1928, 76, 229

Fat digestibility, effect (GALLUP and REDER)

1931-32, 94, 221

Glucose absorption, gastrointestinal tract, effect (GALLUP and REDER)

1931-32, 94, 221

Oxidation (CLARK)

1928, 77, 81

Protein digestibility, effect (GALLUP and REDER)

1931-32, 94, 221

Toxicity (NELSON and JONES)

1930, 87, xlvii

(GALLUP) 1931, 93, 381

(GALLUP and REDER)

1931-32, 94, 221

—, iron salts, effect (GALLUP)

1928, 77, 437

Grape: Ives, anthocyanins (SHRINER and ANDERSON)

1928, 80, 743

Pigments, chemistry (SHRINER and ANDERSON)

1928, 80, 743

Growth: Aluminum effect (MYERS and MULL)

1928, 78, 605

Amino acid deficiency (MITCHELL and SMUTS)

1932, 95, 263

— acids, 5-carbon, relation (St. JULIAN and ROSE)

1932, 97, xxxi

Anemia, nutritional, inorganic elements effect (BEARD)

1931-32, 94, 135

Growth—continued:

- Arginine-low diet (BUNNEY and ROSE) 1928, 76, 521
- Body constituents, relation (CHANUTIN) 1931, 93, 31
- Calcium storage, children (HUNSCHER, COPE, NOLL, and MACY) 1933, 100, lv
- Cereal effect (ROSE and McCOLLUM) 1928, 78, 535
- Cholesterol influence (SINCLAIR) 1930, 88, 575
- Creatine effect (CHANUTIN and BEARD) 1928, 78, 167
- Diet effect (HOGAN, HUNTER, and KEMPSTER) 1928, 77, 431
- (GRAHAM and GRIFFITH) 1931, 92, lxiii
- Dietary arginine and tissue arginine, relation (SCULL and ROSE) 1930, 89, 109
- calcium-phosphorus ratio, effect (BETHEKE, KICK, and WILDER) 1932, 98, 389
- sodium benzoate, effect (GRIFFITH) 1928, 78, xxiv
- —, relation (ST. JOHN) 1928, 77, 27
- Embryo, chemistry (WILKERSON and GORTNER) 1932, 97, lxi
- , nitrogen compounds in (WILKERSON and GORTNER) 1932, 97, lxi
- Factor, vitamin B₄ (HALLIDAY) 1932, 96, 479
- Fat-free diets (McAMIS, ANDERSON, and MENDEL) 1929, 82, 247
- Food consumption, influence (PALMER and KENNEDY) 1930, 87, xlv
- 1931, 90, 545

Growth—continued:

- Food efficiency quotient, influence (PALMER and KENNEDY) 1930, 87, xlv
- 1931, 90, 545
- requirements (KENNEDY and PALMER) 1928, 76, 591, 607
- (PALMER and KENNEDY) 1930, 87, xlv
- 1931, 90, 545
- Metabolism, relation (CERCEDO and STEKOL) 1932, 97, lx
- Parathyroid gland relation (KOZELKA, HART, and BOHSTEDT) 1933, 100, 715
- Phospholipid influence (SINCLAIR) 1930, 88, 575
- Phosphorus storage, children (HUNSCHER, COPE, NOLL, and MACY) 1933, 100, lv
- Promoting ability, *dl*-tryptophane (BERG and POTGIETER) 1931-32, 94, 661
- principle, anterior pituitary, neoplasm growth, effect (BISCHOFF, MAXWELL, and ULLMAN) 1932, 97, cii
- properties, *d*- and *l*-cystine, comparison (DU VIGNEAUD, DORFMANN, and LORING) 1932, 98, 577
- —, milk, water-soluble portion (SUPPLEE, KAHLLENBERG, and FLANIGAN) 1931, 93, 705
- Statistical interpretation (SHERMAN and CAMPBELL) 1932, 97, iii
- Tryptophane and (BERG, ROSE, and MARVEL) 1929-30, 85, 219

Growth—continued:

- Tryptophane-deficient diet,
tryptophane derivatives sup-
plementing (BERG, ROSE, and
MARVEL) 1929-30, 85, 207
- —, — supplement (BERG
and ROSE) 1929, 82, 479
- Vegetable effect (ROSE and
MCCOLLUM) 1928, 78, 535
- Vitamin A source, carotene
and xanthophyll (KLINE,
SCHULTZE, and HART)
1932, 97, 83
- B concentrates, effect
(SURE) 1932, 97, 133
- — effect (SURE, SMITH, KIK,
and WALKER)
1931, 92, viii
- —, avitaminosis (SURE,
KIK, and CHURCH)
1932, 97, vi
- Guanidine(s):** *p*-Aminophenyl-
hydroiodide (BRAUN)
1930, 89, 97
- , —, hypoglycemic action
(PARKS and BRAUN)
1931, 91, 629
- Bases, blood, determination,
colorimetric (PFIFFNER and
MYERS) 1930, 87, 345
- , excretion (WEBER)
1928, 78, xv
- , urine, determination
(WEBER) 1928, 78, 465
- Blood, human (ANDES and
MYERS) 1932, 97, cix
- Hypoglycemia, chemical con-
stitution, relation (BISCHOFF,
SAHYUN, and LONG)
1929, 81, 325
- Substituted, preparation
(BISCHOFF) 1928, 80, 345
- Guaninedesoxy-pentoside:** Thy-
mus nucleic acid (LEVENE
and LONDON) 1929, 81, 711
- Guanosine:** Ring structure (LE-
VENE and TIPSON)
1932, 97, 491
- Guanylic acid:** Adenylic acid
and, hydrolysis rate, com-
parison (LEVENE and DMO-
CHOWSKI) 1931, 93, 563
- Xanthylic acid and, hydrolysis
rate, comparison (LEVENE
and DMOCHOWSKI)
1931, 93, 563
- Gum arabic:** Aldobionic acid,
crystalline (HEIDELBERGER
and KENDALL)
1929, 84, 639

H

- Hagedorn-Jensen:** Carbohy-
drate reduction, Benedict-
Myers, Folin-Wu, compari-
son (PUCHER and FINCH)
1928, 76, 331
- Polysaccharide determination,
tuberculin, Shaffer-Hartman
method, comparison (MUN-
DAY and SEIBERT)
1933, 100, 277
- Hair:** Amino acids, basic (VICK-
ERY and LEAVENWORTH)
1929, 83, 523
- Chemical composition, diet
relation (LIGHTBODY and
LEWIS) 1929, 82, 663
- Cystine, dietary cystine, rela-
tion (SMUTS, MITCHELL, and
HAMILTON) 1932, 95, 283
- Growth, cystine-deficient diet,
relation (BEADLES, BRAMAN,
and MITCHELL)
1930, 88, 623

Hair—continued:

- Growth, dietary cystine, relation (LIGHTBODY and LEWIS) 1929, 82, 485
 (SMUTS, MITCHELL, and HAMILTON) 1932, 95, 283
 —, — protein, relation (LIGHTBODY and LEWIS) 1929, 82, 485
Halotis rufescens: *See* Abalone.
Halogen: -Containing hydrocarbons, decomposition, anesthesia, effect (LUCAS) 1928, 78, lxi
Hay: Calcium metabolism, milking cows, curing effect (HART, STEENBOCK, TEUT, and HUMPHREY) 1929, 84, 367
 Vitamin A (HARTMAN) 1931, 92, vii
See also Alfalfa.
Heart: Theelol effect (MELCHIONNA) 1931, 91, 653
Heat: Casein, biological value, effect (MORGAN) 1931, 90, 771
 Egg white toxicity, effect (PARSONS) 1932, 97, xxx
 Invertase inactivation (NELSON and PAPADAKIS) 1928, 80, 163
 Milk, protein-free, vitamin B₁, effect, varying hydrogen ion concentration (HALLIDAY) 1932, 98, 707
 —, —, — G, effect, varying hydrogen ion concentration (HALLIDAY) 1932, 95, 371
 Production, protein-free diet effect (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY) 1928, 76, 391

Heat—continued:

- Proteins, cereal, biological value, effect (MORGAN) 1931, 90, 771
 Raffinase inactivation (NELSON and PAPADAKIS) 1928, 80, 163
 Salt economy, effect (DILL, JONES, EDWARDS, and OBERG) 1933, 100, 755
 Vitamin B factors, stability (ELVEHJEM, KLINE, KEENAN, and HART) 1932-33, 99, 309
 Vitamins B and G, yeast, differentiation by (KENNEDY and PALMER) 1929, 83, 493
Hederagenin: Dehydrogenation, partial (JACOBS and FLECK) 1930, 88, 153
Height: -Weight coordinates, nomogram, basal metabolism (BRUEN) 1929-30, 85, 607
Hemagglutinin: Preparation, plant and navy bean (GODDARD and MENDEL) 1929, 82, 447
Hematin: Electrometric titration (CONANT, ALLES, and TONGBERG) 1928, 79, 89
 Linseed oil emulsions, oxidation effect (WRIGHT and VAN ALSTYNE) 1931, 93, 71
 Oxidation-reduction potential, pyridine effect (CONANT and TONGBERG) 1930, 86, 733
Hematopoiesis: Avitaminosis effect (SURE, KIRK, and WALKER) 1929, 83, 375, 387, 401

Hematopoiesis—continued:

- Uric acid, endogenous, and (KRAFKA) 1929, 83, 409
1930, 86, 223
- Vitamin A deficiency (SURE, KIK, and WALKER) 1929, 83, 375
- B complex deficiency, nursing rats (SURE, KIK, and WALKER) 1929, 82, 287
- — deficiency (SURE, KIK, and WALKER) 1929, 83, 387
- — —, nursing rats (SURE, KIK, and WALKER) 1928, 78, xviii
(SURE and SMITH) 1929, 82, 307
- E deficiency (SURE, KIK, and WALKER) 1929, 83, 401
- Hematoporphyrin: Enzyme action (BOYD) 1933, 100, xix
- Hemicellulose: Carbon dioxide evolution, hydrochloric acid action on (ANDERSON) 1931, 91, 559
- Cottonseed hulls (ANDERSON and KINSMAN) 1931-32, 94, 39
- Hemin: Acid hematin solutions, standard, preparation from (ELVEHJEM) 1931, 93, 203
- Electrometric titration (CONANT, ALLES, and TONGBERG) 1928, 79, 89
- Oxidation-reduction potential, pyridine effect (CONANT and TONGBERG) 1930, 86, 733
- Vitamin B₂, relation (SMITH) 1933, 100, 225
- Hemocyanin: Acid-combining capacity, *Limulus polyphemus* (REDFIELD and MASON) 1928, 77, 451

Hemocyanin—continued:

- Amino acid, dibasic, *Limulus polyphemus* (REDFIELD and MASON) 1928, 77, 451
- Blood, *Limulus polyphemus*, buffer action (REDFIELD, HUMPHREYS, and INGALLS) 1929, 82, 759
- Chloride distribution, sea water and *Limulus polyphemus* blood, influence (THOMAS) 1929, 83, 71
- Copper-combining ratio (REDFIELD, COOLIDGE, and MONTGOMERY) 1928, 76, 197
- Limulus polyphemus* copper and molecular weight (REDFIELD, COOLIDGE, and SHOTTS) 1928, 76, 185
- Oxygen-combining ratio (REDFIELD, COOLIDGE, and MONTGOMERY) 1928, 76, 197
- Hemoglobin: Amino acids, basic (VICKERY and LEAVENWORTH) 1928, 79, 377
- Anemia, nutrition, body weight and, iron therapy effect (BEARD) 1931, 92, lxxxix
- , —, iron plus supplements, action (BEARD, BAKER, and MYERS) 1931-32, 94, 123
- Bicarbonate-sodium chloride systems, Debye-Hückel theory (STADIE) 1928, 77, 303
- Blood, copper relation (McHARGUE, HEALY, and HILL) 1928, 78, 637
- , determination, benzidine reagent (BING) 1932, 95, 387
- , —, colorimetric (WONG) 1928, 77, 409

Hemoglobin—*continued*:

- Blood, determination, Wu method (BING and BAKER) 1931, 92, 589
- , fish (HALL and GRAY) 1929, 81, 589
- , infant (ELVEHJEM and PETERSON) 1932, 97, xi
- , oxygen capacity (MORRISON) 1933, 100, lxxii
- , thyroid enlargement (REMLINGTON) 1931, 92, lxxix
- Building, copper as iron supplement (HART, STEENBOCK, WADDELL, and ELVEHJEM) 1928, 77, 797
- , — effect (TITUS and HUGHES) 1929, 83, 463
- , manganese-copper-iron complex, factor (TITUS, CAVE, and HUGHES) 1928, 80, 565
- , manganese effect (TITUS and HUGHES) 1929, 83, 463
- , synthetic rations (ELVEHJEM and HART) 1931, 91, 37
- Carbon monoxide, spectrograph (BOOR and BACHEM) 1929-30, 85, 743
- —, systems containing, hydrogen ion activity determination, hydrogen electrode (STADIE and HAWES) 1928, 77, 241
- Chemistry (FERRY and GREEN) 1929, 81, 175
- Colorless, splenectomy effect (RAY and ISAAC) 1929-30, 85, 549
- Construction, iron salts, anemia, influence (DAFT) 1933, 100, xxxiv

Hemoglobin—*continued*:

- Copper in molecule (ELVEHJEM, STEENBOCK, and HART) 1929, 83, 21
- Derivatives, blood, spectrophotometric constants (DRABKIN and AUSTIN) 1932, 98, 719
- , spectrophotometric study (DRABKIN and AUSTIN) 1933, 100, xxxvi
- Determination, gasometric (VAN SLYKE and HILLER) 1928, 78, 807
- , manometric, oxygen capacity method (SENDROY) 1931, 91, 307
- , Wu peroxidase method (BING and BAKER) 1931, 92, lxxiii
- Fish, eel, and turtle (McCAY) 1931, 90, 497
- Formation, copper supplement to iron (ELVEHJEM and HART) 1932, 95, 363
- Maintenance, synthetic diets (DRABKIN and WAGGONER) 1930, 89, 51
- Methemoglobin system, oxidation potential, determination (CONANT and PAPPENHEIMER) 1932, 98, 57
- Nitric oxide, solutions, bicarbonate ion activity coefficient (STADIE and HAWES) 1928, 77, 265
- —, —, carbonic acid dissociation constant, apparent, first (STADIE and HAWES) 1928, 77, 265
- Organic precursors (CARTLAND and KOCH) 1928, 78, xxii

Hemoglobin—continued:

- Output, copper salts effect
(ELDEN, SPERRY, ROBSCHT-ROBBINS, and WHIPPLE) 1928, 79, 577
- Oxidation to methemoglobin, spectrophotometric study
(CONANT and SCOTT) 1928, 76, 207
- Oxygen-, equilibrium, electrolyte effect (GREEN and TALBOTT) 1933, 100, p. 1
- , —, hydrogen ion activity, relation (FERRY and GREEN) 1929, 81, 175
- Oxygenation, intermediate compounds (CONANT and MCGREW) 1929-30, 85, 421
- Palmer method, standard solutions, gasometric control
(VAN SLYKE and HILLER) 1929, 84, 211
- Production (DRABKIN and MILLER) 1931, 90, 531
- , —, 1931, 93, 39
- , synthetic diets (DRABKIN and WAGGONER) 1930, 89, 51
- Regeneration, amino acids, chemical elements, and hydrochloric acid, effect (KEIL and NELSON) 1932, 97, 115
- , cereals, influence (ROSE and VAHLTEICH) 1932, 96, 593
- (ROSE and KUNG) 1932, 98, 417
- , copper rôle (KEIL and NELSON) 1931, 93, 49
- , food factors influencing
(ROSE and VAHLTEICH) 1932, 96, 593
- (ROSE and KUNG) 1932, 98, 417

Hemoglobin—continued:

- Regeneration, liver influence
(ROSE and KUNG) 1932, 98, 417
- Solubility, chloride solutions
(GREEN) 1932, 95, 47
- , electrolyte effect (GREEN) 1931, 93, 517
- , salt solutions, concentrated
(GREEN) 1931, 93, 495
- , sulfate solutions (GREEN) 1932, 95, 47
- Solution, bicarbonate ion activity coefficient (STADIE and HAWES) 1928, 77, 265
- , carbon dioxide compounds
(HENRIQUES) 1931, 92, 1
- , carbonic acid dissociation constant, apparent, first
(STADIE and HAWES) 1928, 77, 265
- , sodium chloride in, osmotic coefficient (STADIE and SUNDERMAN) 1931, 91, 227
- Synthesis, iron and copper relation (ELVEHJEM and HART) 1929, 84, 131
- Systems containing, hydrogen ion activity determination, hydrogen electrode (STADIE and HAWES) 1928, 77, 241
- Hemoglobinemia:** Inorganic elements, production (MYERS, BEARD, and BARNES) 1931-32, 94, 117
- Hemolysis:** Acid-producing action (BODANSKY) 1928, 78, xvi
- Fatty acids, saturated, action
(BODANSKY) 1928, 79, 241
- Inorganic acids, action (BODANSKY) 1928, 79, 229

Hemolysis—continued:

Saponin, hydrogen ion concentration effect (BODANSKY)

1929, 82, 567

Sodium chloride, chemically pure, silver in, hemolytic action (BALL) 1932, 97, xciv

Hemorrhage: Anemia, lipemia (JOHANSEN) 1930, 88, 669

Blood acid-base equilibrium, effect (JOHNSTON and WILSON) 1929-30, 85, 727

Diet relation (KUGELMASS) 1932, 97, xii

Hemosiderin: Composition and chemical constitution (COOK) 1929, 82, 595

Henderson-Hasselbalch: Dissociation constant, apparent, blood serum, value (HASTINGS, SENDROY, and VAN SLYKE) 1928, 79, 183

Equation, line charts (VAN SLYKE and SENDROY) 1928, 79, 781

Hen-feathering: Sebright cocks (GALLAGHER, DOMM, and KOCH) 1933, 100, xlvii

Heparin: Rennin coagulation, milk (STONE and ALSBERG) 1928, 78, 557

Hepatectomy: Blood pigment oxygen capacity, effect (STIMSON and HRUBETZ) 1928, 78, 413

Epinephrine calorogenic action (CORI and BUCHWALD) 1931, 92, 367

Galactose utilization (POWER) 1932, 97, lxxxiii

Heptane: 1-Hydroxy-2-oxo-, reduction, phytochemical (LEVENE and WALTY) 1932, 98, 735

Heptanoic acid: α -Hydroxy-, α -hydroxy acids, configurational relationship (LEVENE and WALTY)

1931-32, 94, 593

Heptanol-(6): 2-Methyl-, lactic acid, configurational relationship (LEVENE and HALLER) 1929, 83, 177

Heptanol-1-one-2: Reduction, phytochemical (LEVENE and WALTY) 1932, 98, 735

Heptitol: α -Sedo-, volemitol, identity (LA FORGE and HUDSON) 1928, 79, 1

Herbivora: Synthetic diets (McCAY, MADSEN, and MAYNARD) 1933, 100, lxxviii

Hexacosanic acid: Tubercle bacillus wax, unsaponifiable (ANDERSON) 1929-30, 85, 351

Hexahydrodianhydrostrophanthidin: Isomeric, and derivatives (JACOBS, ELDERFIELD, HOFFMANN, and GRAVE) 1931, 93, 127

Hexosediphosphate: (LEVENE and RAYMOND) 1928, 80, 633

Hexosemonophosphate(s): (LEVENE and RAYMOND) 1930, 89, 479
1931, 92, 757, 765

Muscle, determination (CORI and CORI) 1931-32, 94, 561
—, frog, disappearance (RONZONI and KERLY)

1933, 100, lxxxiv
Robison (LEVENE and RAYMOND) 1929, 81, 279
—, natural and synthetic (LEVENE and RAYMOND)

1931, 91, 751

- Hexose nucleic acid:** Embryo, chicken (CALVERY) 1928, 77, 497
- Hexosephosphate:** Alcoholic fermentation and (RAYMOND and LEVENE) 1928, 79, 621
- Methylglyoxal formation from, tissues (ARIYAMA) 1928, 77, 395
- Muscle, epinephrine and insulin effect (CORI and CORI) 1931, 92, lii
1931-32, 94, 581
- , mammalian, contraction and recovery (CORI and CORI) 1932-33, 99, 493
- Synthetic, and phenylhydrazine derivatives (RAYMOND and LEVENE) 1929, 83, 619
- Hexoses:** Color tests (FOULGER) 1932-33, 99, 207
- Glucose formation from, by phosphates (SPOEHR and STRAIN) 1929-30, 85, 365
- Interconversion by phosphates (SPOEHR and STRAIN) 1929-30, 85, 365
- Walden inversion (LEVENE, RAYMOND, and WALTI) 1929, 82, 191
- Hexuronic acid(s):** Cabbage leaf respiration, function (SZENT-GYÖRGYI) 1931, 90, 385
- Naturally occurring, methylglycosides (MORELL and LINK) 1933, 100, 385
- Synthesis (NIEMANN and LINK) 1932, 95, 203
1933, 100, 407
- Hippuric acid:** Elimination (DIACK and LEWIS) 1928, 77, 89
- Hippuric acid—continued:**
- Formation, lignin factor (CSONKA, PHILLIPS, and JONES) 1928, 78, xxiv
- Synthesis, animal organism (DIACK and LEWIS) 1928, 77, 89
- , rat (GRIFFITH) 1929-30, 85, 751
1933, 100, p.l
- site, dog (QUICK) 1932, 96, 73
- Hirudin:** Rennin coagulation, milk (STONE and ALSBERG) 1928, 78, 557
- Hispidus:** Strophanthin (JACOBS and HOFFMANN) 1928, 79, 531
- Histaminase:** (McHENRY and GAVIN) 1931, 92, lxxv
- Histidine:** Arginine, separation (VICKERY and LEAVENWORTH) 1928, 78, 627
- Cystine separation from (VICKERY and LEAVENWORTH) 1929, 83, 523
- Deficient diet, ergothioneine, supplement (EAGLES and COX) 1928, 80, 249
- Dissociation constants, apparent (SCHMIDT, APPLEMAN, and KIRK) 1929-30, 85, 137
- Free, crystallization (VICKERY and LEAVENWORTH) 1928, 76, 701
- Histidyl-, titration constants (GREENSTEIN) 1931, 93, 479
- Insulin isolation (JENSEN) 1928, 78, xli
- Optical properties (KEENAN) 1929, 83, 137

Histidine—continued:

Preparation (VICKERY and
LEAVENWORTH)

1928, 78, 627

—, blood corpuscle paste, hydrolyzed (COX, KING, and BERG)

1929, 81, 755

Histidylhistidine: Titration constants (GREENSTEIN)

1931, 93, 479

Holcus sorghum: *See* Feterita, Milo.

Homogentisic acid: Oxidation-reduction system, physiological (FISHBERG and DOLIN)

1932, 97, lxxxviii

Honey: Invertase (PAPADAKIS)

1929, 83, 561

Hordeum vulgare: *See* Barley.

Hormones: Cancer, effect (BISCHOFF, MAXWELL, and ULLMANN)

1931, 92, lxxx

1932, 97, cii

Hydantoin(s): Phenyl-, cysteic acid, preparation and properties (ANDREWS and ANDREWS)

1933, 100, vi

5,5'-Phenylethyl-, optically active (SOBOTKA, PECK, and KAHN)

1932, 97, lxxix

Thio-, derivatives, cystine and cysteine (NICOLET)

1930, 88, 395

—, —, — — cysteine, alkali action (NICOLET)

1930, 88, 403

—, optically active, preparation (CSONKA and NICOLET)

1932-33, 99, 213

*2-Thio-, preparation, thiocyanate method (NICOLET)

1932-33, 99, 429

Hydrindene: Bile salt metabolism effect (SMITH and WHIPPLE)

1930, 89, 719

Hydrocarbons: Configurational relationship (LEVENE and MARKER)

1931, 91, 405, 761

1931, 92, 455

1932, 95, 1

1933, 100, 769

Halogen-containing, decomposition, anesthesia, effect (LUCAS)

1928, 78, lxi

Isoamyl series, optical rotations (LEVENE and MARKER)

1932, 95, 1

Isopropyl series, optical rotations (LEVENE and MARKER)

1933, 100, 769

Methylisobutylmethane series, optical rotations (LEVENE and MARKER)

1931, 92, 455

Normal series, optical rotations (LEVENE and MARKER)

1931, 91, 761

Hydrochloric acid: Hemoglobin regeneration, effect (KEIL and NELSON)

1932, 97, 115

Hydrogen: Gas mixtures, determination by absorption,

Paal's picrate-palladium solution (VAN SLYKE and HANKE)

1932, 95, 587

— — — combustion (VAN SLYKE and HANKE)

1932, 95, 569

Solubility, blood serum and cells (VAN SLYKE and SENDROY)

1928, 78, 801

Hydrogen ion: Activity determination, hydrogen electrode (STADIE and HAWES)

1928, 77, 241

Hydrogen ion concentration: Biological fluids, determination, micro electrode and vessel (SALLE) 1929, 83, 765

— — —, titrimetric quinhydrone and hydrogen electrodes, comparison (MEKKER and REINHOLD)

1928, 77, 505

Blood cell volume changes, relation (DILL) 1928, 76, 543

—, determination (CULLEN and EARLE) 1928, 76, 565 (EARLE and CULLEN)

1928, 76, 583

—, —, colorimetric (MYERS and MUNTWYLER)

1928, 78, 243

—, —, micro electrode and vessel (SALLE) 1929, 83, 765

—, —, quinhydrone electrode (HANKS) 1931, 92, xlix

— media, determination, micro electrode and vessel (SALLE) 1929, 83, 765

— plasma, cancer (BISCHOFF, LONG, and HILL)

1930, 87, liv

— —, determination (SHOHL) 1929, 83, 759

— — —, colorimetric, *C* correction (ROBINSON, PRICE, and CULLEN)

1933, 100, lxxxiii

— — —, Cullen correction (MUNTWYLER and MYERS)

1931, 92, xlviii

Hydrogen ion concentration—continued:

Blood plasma, determination, quinhydrone electrode (CULLEN and EARLE)

1928, 76, 565

(LAUG) 1930, 88, 551

— serum (EARLE and CULLEN) 1929, 83, 539

— —, determination (SHOHL) 1929, 83, 759

— — —, colorimetric, and hydrogen and quinhydrone electrodes, comparison (EARLE and CULLEN) 1928, 76, 583

— — — —, *C* correction (ROBINSON, PRICE, and CULLEN) 1933, 100, lxxxiii

— — —, glass electrode and electron tube potentiometer (STADIE, O'BRIEN, and LAUG) 1931, 91, 243

— — —, manometric (VAN SLYKE, SENDROY, and LIU) 1932, 95, 547

— — —, quinhydrone electrode (CULLEN and EARLE) 1928, 76, 565

(LAUG and WILSON) 1930, 87, xxvii

(LAUG) 1930, 88, 551

(HANKS) 1931, 92, xlix

Determination, colorimetric and hydrogen electrode methods, comparison (JOHNSTON) 1928, 79, 297

—, glass electrode (MIRSKY and ANSON) 1929, 81, 581

— — —, electron tube potentiometer (STADIE)

1929, 83, 477

Feces, rickets (SHOHL and BING) 1928, 79, 269

Hydrogen ion concentration—continued:

- Fetus tissue (MILLET)
1928, 78, 281
- Gastrointestinal tract, diet and rickets, relation (GRAYZEL and MILLER) 1928, 76, 423
- Gelatin solutions, interfacial adsorption, relation (JOHLIN) 1930, 87, xix
- , surface tension, sessile bubble method, influence (JOHLIN) 1930, 87, 319
- Intestine, lactose and dietary acid-base value, effect (ROBINSON and DUNCAN) 1931, 92, 435
- , rickets (OSER) 1928, 80, 487
- Muscle, fish (BENSON) 1928, 78, 583
- Neoplasm (MILLET) 1928, 78, 281
- Phosphate buffer mixtures, neutral salts influence (ROBINSON) 1929, 82, 775
- Stomach contents, calcium citrate and carbonate effect (RUSSELL and McDONALD) 1930, 87, iv
- Tissue, determination, glass electrode (MILLER) 1928, 78, 281
- Urine, determination, colorimetric (MYERS and MUNTWYLER) 1928, 78, 225
- Hydrogen peroxide:** Catalase destruction (MORGULIS) 1931, 92, 377
- d-Hydroglucal:** Blood sugar, influence (FREUDENBERG) 1932-33, 99, 647

- Hydroquinone:** (HUSTON and LIGHTBODY) 1928, 76, 547
- Vitamin A, oils, effect (HUSTON, LIGHTBODY, and BALL) 1928, 79, 507
- Hydroxy acids:** Organic, titration, ferric and cupric salts influence (SMYTHE) 1931, 92, 233
- α -Hydroxy acids:** Fatty, oxidation, *in vitro* (WITZEMANN) 1931, 92, xxxii
- , —, potassium permanganate (WITZEMANN) 1932, 95, 219
- , shift in point of rupture (WITZEMANN) 1931, 92, xxxii
1932, 95, 247
- α -Hydroxyheptanoic acid,** configurational relationship (LEVENE and WALTI) 1931-32, 94, 593
- α -Hydroxyaldehydes:** Polymerization (LEVENE and WALTI) 1931-32, 94, 353
- Hydroxyaliphatic acid(s):** Chloroaliphatic acids, 2-, 3-, 4-substituted, configurational correlation (LEVENE and HALLER) 1929, 83, 591
- Hydroxybenzoic acids:** Conjugation (QUICK) 1932, 97, lxi, 403
- 3-Hydroxybutyric acid:** 3-Chlorobutyric acid, configurational relationship (LEVENE and HALLER) 1929, 81, 425
- Methylpropylcarbinol,** configurational relationship (LEVENE and HALLER) 1929, 81, 425

- 2-Hydroxycaproic acid:** Lactic acid, configurational relationship (LEVENE and HALLER) 1928, 79, 475
- α -Hydroxyheptanoic acid:** α -Hydroxy acids, configurational relationship (LEVENE and WALTJ) 1931-32, 94, 593
- α -Hydroxyoxidase:** Gonococci, lactic acid oxidation, mechanism (BARRON and HASTINGS) 1932, 97, lxxiii
- Lactate-pyruvate oxidation-reduction potentials, coenzyme effect (BARRON and HASTINGS) 1933, 100, xi
- Lactic acid oxidation, mechanism (BARRON and HASTINGS) 1933, 100, 155
- 1-Hydroxy-2-oxo-heptane:** Reduction, phytochemical (LEVENE and WALTJ) 1932, 98, 735
- Hydroxyproline:** Color test (MORSE) 1933, 100, 373
- — for scleroproteins (MORSE) 1933, 100, 373
- Lability, protein molecule (MORSE) 1933, 100, lxxiii
- Nutrition, rôle (ST. JULIAN and ROSE) 1932, 98, 445
- Preparation (KLABUNDE) 1931, 90, 293
- 8-Hydroxyquinoline:** Blood magnesium, determination (GREENBERG and MACKAY) 1932, 96, 419
- (BOMSKOV) 1932-33, 99, 17
- (GREENBERG and MACKAY) 1932-33, 99, 19
- 2-Hydroxyvaleric acid:** Lactic acid, configurational relationships (LEVENE and HALLER) 1928, 77, 555
- 3-Hydroxyvaleric acid:** Lactic acid, configurational relationship (LEVENE and HALLER) 1928, 76, 415
- Hydroxyvaline:** Dissociation constants, apparent (CZARNETZKY and SCHMIDT) 1931, 92, 453
- Hypercalcemia:** Blood serum calcium and inorganic phosphorus, forms (BENJAMIN and HESS) 1933, 100, 27
- Ergosterol, irradiated, calcium and phosphorus intake, relation (JONES and RAPOPORT) 1931, 93, 153
- , —, — source (JONES, RAPOPORT, and HODES) 1930, 89, 647
- (HESS, BENJAMIN, and GROSS) 1931-32, 94, 1
- Vioosterol, blood serum calcium, source (SHELLING) 1932, 96, 229
- Hypercalcuria:** Calcium and phosphorus metabolism (STEARNS and BOYD) 1930, 87, xv
- Hypercholesterolemia:** Fasting, fat, carbohydrate, and protein administration, influence (SHOPE) 1928, 80, 133
- Hyperglycemia:** Production, sodium arsenite effect (UNDERHILL and DIMICK) 1928, 76, 163

- Hyperparathyroidism:** Blood plasma phosphatase (BODANSKY and JAFFE) 1931, 92, xvi
- Hypocalcemia** following (BODANSKY and JAFFE) 1931, 93, 543
- Otitis fibrosa** cause (BODANSKY, BLAIR, and JAFFE) 1930, 88, 629
- Hyperphosphatemia:** Ergosterol, irradiated, calcium and phosphorus intake, relation (JONES and RAPOPORT) 1931, 93, 153
- Hypertension:** Alkalosis (MUNTWYLER and WAY) 1930, 87, lv
- Hyperthermia:** Acid-base equilibrium (DALY and KNUDSON) 1932, 97, lvii
- —, induced by short radio waves (BISCHOFF, LONG, and HILL) 1931, 90, 321
- Electric current,** high frequency (BISCHOFF, ULLMANN, HILL, and LONG) 1929-30, 85, 675
- Phosphorus equilibrium** (BISCHOFF, MAXWELL, and HILL) 1931, 90, 331
- metabolism (DALY and KNUDSON) 1932, 97, lvii
- Hyperthyroidism:** Muscle, auto-lyzing, phosphorus and carbohydrate metabolism (BUELL and STRAUSS) 1932, 97, lxv
- Hypobromite:** Urea, determination, manometric (VAN SLYKE) 1929, 83, 449
- Hypocalcemia:** Hyperparathyroidism (BODANSKY and JAFFE) 1931, 93, 543
- Hypocalcuria:** Calcium and phosphorus metabolism (STEARNS and BOYD) 1930, 87, lvi
- Hypoglycemia:** *p*-Aminophenylguanidine hydroiodide action (PARKS and BRAUN) 1931, 91, 629
- Guanidine** structure and (BISCHOFF, SAHYUN, and LONG) 1929, 81, 325
- Insulin,** convulsions, mechanism (DRABKIN and RAVDIN) 1930, 87, iii
- , dihydroxyacetone effect (LEVENE and BLANCO) 1928, 79, 657
- Vitamin B** deficiency, nursing rat (SURE and SMITH) 1929, 82, 307
- Hypophysectomy:** Calcium excretion, thyroid feeding and parathyroid hormone injection effect (PUGSLEY) 1933, 100, lxxxi
- Hypophysis** extract effect (WADE, KATZMAN, and JORGENSEN) 1933, 100, xcvi
- Meat,** specific dynamic action, effect (GAEBLER) 1929, 81, 41
- Urine** extract, pregnancy, effect (WADE, KATZMAN, and JORGENSEN) 1933, 100, xcvi
- Hypophysis:** Disturbances, specific dynamic response (JOHNSTON) 1931, 92, xciii

Hypophysis—continued:

Extract, hypophysectomy, effect (WADE, KATZMAN, and JORGENSEN)

1933, 100, xcvi

Imide: Acid, biuret reaction, barbituric acid type (RISING and JOHNSON)

1928, 80, 709

Inanition: Blood changes, effect (SCHLUTZ and MORSE)

1932, 97, lix

— serum calcium, proteins, and inorganic phosphorus (SCHELLING) 1930, 89, 575

Indene: Bile salt metabolism effect (SMITH and WHIPPLE)

1930, 89, 719

Indicator: Acid-base, activity coefficients (SENDROY and HASTINGS) 1928, 78, lxxvii

1929, 82, 197

Oxidation-reduction (MICHAELIS and EAGLE)

1930, 87, 713

—, rosinduline (MICHAELIS)

1931, 91, 369

Indigo carmine: Elimination, glomerulus, frog (RICHARDS and WALKER)

1930, 87, 479

Indole: Bacterial cultures, determination, Bergeim fecal indole method (PIERCE and KILBORN) 1929, 81, 381

Derivatives, tryptophane-deficient diet (JACKSON)

1929, 84, 1

—, —, supplement (BAUGUESS and BERG)

1933, 100, xii

Indole—continued:

Series, β oxidation (JACKSON) 1930, 87, xiv

3-Indolepropionic acid: Tryptophane-deficient diet, supplement, growth on (BERG, ROSE, and MARVEL)

1929–30, 85, 219

3-Indolepyruvic acid: Tryptophane-deficient diet, supplement, growth on (BERG, ROSE, and MARVEL)

1929–30, 85, 219

Indoxyl: Compounds, urine, determination (SHARLIT)

1932–33, 99, 537

Infant: Blood hemoglobin (ELVEHJEM and PETERSON)

1932, 97, xi

Liver copper (MORRISON and NASH) 1930, 87, xl

1930, 88, 479

Mortality, rat, milk vitamin B, relation (SURE)

1928, 76, 685

New born, tibia, calcification (BOOHER and HANSMANN)

1931–32, 94, 195

Urine calcium excretion (STEARNS) 1932, 97, lxii

Infantilism: Lorain, metabolism (WANG, HOGDEN, KAUCHER, and WING) 1933, 100, xcix

Inorganic acids: Hemolytic action (BODANSKY)

1928, 79, 229

Inorganic bases: Biological material, determination, spectrographic (WILEY, OWENS, and DUFFENDACK)

1933, 100, cv

Inorganic composition: Blood (KERR) 1929–30, 85, 47

Inorganic composition—continued:

Blood, parathyroidectomy
(WEAVER and REED)

1929-30, 85, 281

Body fluids, Chelonia (SMITH)
1929, 82, 651

Diet low in, base conservation,
mechanism (BROOKE and
SMITH) 1932, 97, cv

— — —, mineral metabolism
(BROOKE and SMITH)

1933, 100, 105

Pancreatic juice, pancreatic
duct drainage (JOHNSTON
and BALL)

1930, 86, 643

Ration deficient in, blood effect
(SWANSON and SMITH)

1932, 98, 479

Saliva, parotid, blood serum
composition, relation (DE
BEER and WILSON)

1932, 95, 671

Tissue, determination (KUTZ)
1931, 92, lxxii

Inorganic elements: Anemia,
nutritional, blood regenera-
tion, effect (BEARD)

1931-32, 94, 135

—, —, —, iron supplement,
effect (MYERS and BEARD)

1931-32, 94, 89

—, —, effect (BEARD and
MYERS) 1930, 87, xxxix

—, —, growth effect (BEARD)
1931-32, 94, 135

—, —, prevention (BEARD,
RAFFERTY, and MYERS)

1931-32, 94, 111

Hemoglobinemia production
(MYERS, BEARD, and
BARNES) 1931-32, 94, 117

Inorganic elements—continued:

Polycythemia production
(MYERS, BEARD, and
BARNES) 1931-32, 94, 117

Spinach, anemia, nutritional
(MITCHELL and MILLER)

1929-30, 85, 355

Inorganic factors: Calcification
relation (SHELLING, KRAMER,
and ORENT) 1928, 77, 157

Inorganic metabolism: Phlorhi-
zin influence (KASTLER)

1928, 76, 643

Inorganic salts: Blood serum
composition, injection influ-
ence (BALL) 1930, 86, 449

-Low ration, tooth effect (AR-
NIM, CLARKE, ANDERSON,
and SMITH) 1933, 100, viii

Metabolism, simple goiter in-
volution (BAUMANN)

1931, 92, lxxx

Nutrition (SWANSON and
SMITH) 1932, 98, 479, 499
(BROOKE and SMITH)

1933, 100, 105

Pancreatic juice composition,
injection influence (BALL)

1930, 86, 449

Ration poor in, blood effect
(SWANSON and SMITH)

1932, 98, 499

Inosinic acid: (LEVENE and
MORI) 1929, 81, 215

Origin (BUELL)
1929-30, 85, 435

Inosite: Tubercle bacillus phos-
phatide fraction (ANDERSON
and ROBERTS)

1930, 89, 611

Insect: Vitamin B fractions,
test (McCAY)

1933, 100, lxxvii

Insect—continued:

Vitamin research (SWEETMAN
and PALMER) 1928, 77, 33

Insulin: Absorption, intestine
(HARNED and NASH)
1932, 97, 443

Adsorbed, electrical properties
(WINTERSTEINER and
ABRAMSON)

1932-33, 99, 741

Adsorption, charcoal (JENSEN
and DE LAWDER)

1930, 87, 701

Alcohol, acid, action (CHARLES
and SCOTT) 1931, 92, 289

Anaerobic action (BUCHWALD
and CORI) 1931, 92, 355

— conditions, action (CORI
and BUCHWALD)

1930, 87, xxxviii

Antiproteases, protection
(HARNED and NASH)

1932, 97, 443

Antitrypsin, protection
(HARNED and NASH)

1932, 97, li

Assay (PUCHER)

1928, 78, lxiii

Blood, amino acid, effect (LUCK,
MORRISON, and WILBUR)

1928, 77, 151

(DANIELS and LUCK)

1931, 91, 119

— — — nitrogen, effect (BIS-
CHOFF and LONG)

1929, 84, 629

— cell, red, sugar, effect
(TRIMBLE and MADDOCK)

1928, 78, 323

— diastase, diabetes, effect
(REID and MYERS)

1932-33, 99, 607

Insulin—continued:

Blood diastase, effect (REID)

1932, 97, p. 1

— lactic acid, effect (CORI,
CORI, and BUCHWALD)

1930, 86, 375

— non-protein nitrogen dis-
tribution, effect (KERR and
KRIKORIAN) 1929, 81, 421

— phosphorus and potassium
distribution, effect (KERR)

1928, 78, 35

— plasma phospholipid, amy-
tal and, effect (MILLER)

1933, 100, lxx

— sugar curves, effect (FRIE-
DENSEN, ROSENBAUM,
THALHEIMER, and PETERS)

1928, 80, 269

— — distribution, diabetes,
effect (SHOPE)

1928, 78, 111

— —, injection effect (SAH-
YUN and BLATHERWICK)

1928, 77, 459

Carbohydrate balance, effect
(CORI and CORI)

1928, 78, lxii

— metabolism, postabsorptive
state, effect (CORI and CORI)

1928, 79, 321

Chemistry (JENSEN and
EVANS) 1932, 97, xlviii

(EVANS and SCHOCK)

1933, 100, xli

Crystalline (JENSEN and DE
LAWDER) 1930, 87, xlv, 701

(SCOTT) 1931, 92, 281

—, acetylation (JENSEN)

1928, 78, xli

—, ammonium hydroxide ac-
tion (JENSEN, SCHOCK, and
SOLLERS)

1932, 98, 93

Insulin—continued:

- Crystalline, arginine isolation
(JENSEN) 1928, 78, xli
- , electrical properties (WINTERSTEINER and ABRAMSON)
1932-33, 99, 741
- , glutamic acid isolation
(JENSEN and WINTERSTEINER) 1932, 97, 93
- , heat precipitate (DU VIGNEAUD) 1931, 92, liv
- , histidine isolation (JENSEN)
1928, 78, xli
- , hydrolysis products (JENSEN and WINTERSTEINER)
1932, 98, 281
- , inactivation, cysteine and glutathione (DU VIGNEAUD, FITCH, PEKAREK, and LOCKWOOD) 1931-32, 94, 233
- , iodine action (JENSEN, SCHOCK, and SOLLERS)
1932, 98, 93
- , leucine isolation (JENSEN)
1928, 78, xli
- Dihydroxyacetone utilization, influence (CORI and CORI)
1928, 76, 755
- Fructose utilization, influence (CORI and CORI)
1928, 76, 755
- Galactose metabolism, effect (ROE and SCHWARTZMAN)
1932, 96, 717
- Glucose and, blood sugar and respiratory metabolism curves, effect (RABINOWITCH and BAZIN) 1928, 80, 723
- utilization, influence (CORI and CORI) 1928, 76, 755
- Glucuronic acid production, influence (QUICK)
1932, 98, 537

Insulin—continued:

- Glycogen distribution, fish, influence (ROOT, HALL, and GRAY) 1931, 91, 27
- , influence (BLATHERWICK and SAHYUN)
1929, 81, 123
(SAHYUN and LUCK)
1929-30, 85, 1
- Hypoglycemia, convulsions, mechanism (DRABKIN and RAYDIN) 1930, 87, iii
- , dihydroxyacetone effect (LEVENE and BLANCO)
1928, 79, 657
- Isoelectric point (WINTERSTEINER and ABRAMSON)
1932-33, 99, 741
- Ketonuria, diabetes, effect (BEHRE) 1931, 92, 679
- Liver glycogen, effect (CORI, CORI, and BUCHWALD)
1930, 86, 375
(BODO and NEUWIRTH)
1931, 92, xxv
- — formation, influence (CORI and CORI)
1929-30, 85, 275
- lipids, effect (THEIS)
1928, 77, 75
- Muscle hexosephosphate, effect (CORI and CORI)
1931, 92, lii
1931-32, 94, 581
- phosphorus compounds, effect (KERR and BLISH)
1932, 97, 11
- Physiological response, rabbit (SAHYUN and BLATHERWICK)
1928, 79, 443
- Protein, denaturation (BISCHOFF and SAHYUN)
1929, 81, 167

Insulin—continued:

Protein metabolism, effect (MILHORAT and CHAMBERS)

1928, 77, 595

(KIECH and LUCK)

1928, 78, 257

Reaction, peculiar, human

(CHASE) 1931, 92, liii

Recovery (PUCHER)

1928, 78, lxiii

Integument: Chemistry (MORSE)

1931, 92, xxxix

1932, 97, xxx

1933, 100, 373, lxxiii

Collagen, chemistry (MORSE)

1932, 97, xxx

Protein behavior, post mortem

(MORSE) 1931, 92, xxxix

Intestine: Absorption (CORI)

1930, 87, 13

(CORI, VILLIAUME, and

CORI) 1930, 87, 19

Enzymes, loop transplanted

(PIERCE, NASSET, and MURLIN)

1931, 92, lxxvi

Fermentation, respiratory quotient, abnormal, fat-deficient diet, effect (WESSON)

1933, 100, 365

Hydrogen ion concentration, lactose and dietary acid-base value, effect (ROBINSON and DUNCAN)

1931, 92, 435

— — —, rickets (OSER)

1928, 80, 487

Juice secretion, humoral influence (PIERCE, NASSET, and MURLIN)

1932, 97, xlii

Lipid secretion (SPERRY and ANGEVINE)

1930, 87, xxii

1932, 96, 769

Intestine—continued:

Loop, transplanted (PIERCE, NASSET, and MURLIN)

1932, 97, xliii

Mucosa, lipids (SPERRY)

1931, 92, xxxiii

1932, 96, 759

—, phospholipids, fat absorption, rôle (SINCLAIR)

1929, 82, 117

Nucleotidase (LEVENE and DILLON)

1930, 88, 753

1932, 96, 461

Organic acid production in excised (VON OTTINGEN and SOLLMANN)

1929–30, 85, 245

Polynucleotidase (LEVENE and DILLON)

1932, 96, 461

Putrefaction, Bergeim test (HOELZEL)

1929, 83, 331

Intoxication: Alcoholic, blood alcohol relation (TURNER)

1931, 92, lxxxvi

—, determination, cerebrospinal fluid analysis (GETTLER and FREIREICH)

1931, 92, 199

Invertase: Honey (PAPADAKIS)

1929, 83, 561

Inactivation, heat (NELSON and PAPADAKIS)

1928, 80, 163

Yeast, diffusion, collodion membranes (NELSON and PALMER)

1930, 87, 1

—, properties (NELSON and PALMER)

1931, 92, lxxviii

Iodine: -Absorbing material, plants (MARINE, BAUMANN, and WEBSTER)

1930, 89, 213

Iodine—continued:

- Blood, determination (BAUMANN and METZGER)
 - 1932, 97, xc
 - 1932, 98, 405
- , disease (TURNER and MATTHEWS) 1931, 92, lxxxviii
- , microdetermination, colorimetric (TURNER)
 - 1930, 87, xxix
 - 1930, 88, 497
- , pathological, goitrous region (Detroit) (TURNER)
 - 1932, 97, civ
- , pituitary, anterior, acid extract, effect (CLOSS, LOEB, and MACKAY)
 - 1932, 96, 585
- Calcium metabolism, hyperplastic thyroid, influence (SANDBERG and HOLLY)
 - 1932–33, 99, 547
- Coral, gorgonian (SUGIMOTO)
 - 1928, 76, 723
- Cranberry (MORSE)
 - 1928, 79, 409
- Fat and fatty foods, determination (McCLENDON, MATHIESON, and HYNES)
 - 1928, 78, xlv
- Food, determination (BAUMANN and METZGER)
 - 1932, 97, xc
 - 1932, 98, 405
- Level, fat deficiency and metabolism, relation (BURR and BEBER) 1933, 100, xxiv
- Milk, thyroid gland size, iodine content, effect (KRAUSS and MONROE) 1930, 89, 581
- Phosphorus metabolism hyperplastic thyroid, influence (SANDBERG and HOLLY)
 - 1932–33, 99, 547

Iodine—continued:

- Requirement (REMINGTON)
 - 1932, 97, ci
- Starch-, reaction (FIELD)
 - 1931, 92, 413
- Sugars, reducing rate (ARIYAMA and SHAFFER)
 - 1928, 78, li
- Thyroid gland, anterior pituitary substances, influence (SCHOCKAERT and FOSTER)
 - 1932, 95, 89
- — iodine, administration effect (GUTMAN, BENEDICT, BAXTER, and PALMER)
 - 1932, 97, 303
- —, iodized milk effect (KRAUSS and MONROE)
 - 1930, 89, 581
- —, pituitary, anterior, acid extract, effect (CLOSS, LOEB, and MACKAY)
 - 1932, 96, 585
- —, seasonal variations (KENDALL and SIMONSEN)
 - 1928, 80, 357
- — thyroxine, administration effect (GUTMAN, BENEDICT, BAXTER, and PALMER)
 - 1932, 97, 303
- Tissues, determination (BAUMANN and METZGER)
 - 1932, 97, xc
- Urine, determination (BAUMANN and METZGER)
 - 1932, 98, 405
- Iodoacetate: Mono-, yeast oxidation and fermentation (EHRENFEST) 1932, 97, lxxvi
- Yeast fermentation, inhibition (EHRENFEST)
 - 1933, 100, xxxviii

Iodoacetic acid: Yeast poisoned by, amines, effect (SCHROEDER, WOODWARD, and PLATT) 1933, 100, 525

Ion: Activity coefficient, single, determination, electrometric (STADIE and HAWES) 1928, 78, xxix

Ionization: Optical rotation, effect (LEVENE, BASS, ROTHEN, and STEIGER) 1929, 81, 687

Ipomoea batatas: *See* Sweet potato.

Ipomoein: Protein, secondary, from, enzymic isolation (JONES and GERSDORFF) 1931, 93, 119

Sweet potato (JONES and GERSDORFF) 1931, 93, 119

Iron: Amino acids, combination (SMYTHE and SCHMIDT) 1930, 88, 241

Anemia, effect (WADDELL, STEENBOCK, and HART) 1929, 83, 243

—, milk and, copper deficiency, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 1929, 83, 251

—, nutritional, blood regeneration, effect (BEARD and MYERS) 1931-32, 94, 71

—, —, —, inorganic elements supplement effect (MYERS and BEARD) 1931-32, 94, 89

—, —, body weight and hemoglobin increase, relationship (BEARD) 1931, 92, lxxxix

—, —, copper supplement (WADDELL, STEENBOCK, and HART) 1929, 84, 115

Iron—continued:

Anemia, nutritional, erythrocyte, action (BEARD, BAKER, and MYERS)

1931-32, 94, 123

—, —, glutamic acid supplement, effect (ELVEHJEM, STEENBOCK, and HART)

1931, 93, 197

—, —, hemoglobin, action (BEARD, BAKER, and MYERS) 1931-32, 94, 123

—, —, metal supplements (UNDERHILL, ORTEN, and LEWIS) 1931, 91, 13

—, —, reticulocyte, action (BEARD, BAKER, and MYERS) 1931-32, 94, 123

—, —, — and red blood cell response, action (BEARD and MYERS) 1931, 92, lxii

—, —, supplement variations (MITCHELL and MILLER) 1931, 92, 421

Biological material, determination (ELVEHJEM) 1930, 86, 463

(HANZAL) 1933, 100, li

Blood, determination, colorimetric (WONG) 1928, 77, 409

(REIS and CHAKMAKJIAN) 1931, 92, 59

Catalysis, oxidation mechanism (SMYTHE) 1931, 90, 251

Complex systems, potentiometric studies (MICHAELIS and FRIEDHEIM)

1931, 91, 343

-Containing ash extracts, anemia correction (WADDELL, ELVEHJEM, STEENBOCK, and HART) 1928, 77, 777

Iron—continued:

- Copper-manganese complex, hemoglobin building (TITUS, CAVE, and HUGHES) 1928, 80, 565
- Cysteine oxidation, catalytic effect, mechanism (MICHAELIS) 1929, 84, 777
- Dialuric acid oxidation, spontaneous, effect (HILL) 1931, 92, 471
- Egg, diet effect (ELVEHJEM, KEMMERER, HART, and HALPIN) 1929-30, 85, 89
- yolk (ERIKSON, BOYDEN, MARTIN, and INSKO) 1933, 100, xl
- Feedingstuff (SKINNER and PETERSON) 1928, 79, 679
- Food (PETERSON and ELVEHJEM) 1928, 78, 215
- Group, cysteine complexes (MICHAELIS and BARRON) 1929, 83, 191
- Hemoglobin building, copper supplement (HART, STEENBOCK, WADDELL, and ELVEHJEM) 1928, 77, 797
- formation, copper supplement to (ELVEHJEM and HART) 1932, 95, 363
- synthesis, relation (ELVEHJEM and HART) 1929, 84, 131
- Liver and liver extracts (MEYER and EGGERT) 1932-33, 99, 265
- Metabolism, copper action (ELVEHJEM) 1932, 97, xvi
- (ELVEHJEM and SHERMAN) 1932, 98, 309
- , — influence (JOSEPHS) 1932, 96, 559

Iron—continued:

- Milk-copper diet, effect (UNDERHILL, ORTEN, MUGRAGE, and LEWIS) 1932-33, 99, 469
- , polycythemia, cobalt supplement (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932, 96, 11
- Milk, determination (ELVEHJEM) 1930, 86, 463
- (REIS and CHAKMAKJIAN) 1932, 98, 237
- Nutrition (WADDELL, STEENBOCK, ELVEHJEM, and HART) 1928, 77, 769
- (WADDELL, ELVEHJEM, STEENBOCK, and HART) 1928, 77, 777
- (HART, STEENBOCK, WADDELL, and ELVEHJEM) 1928, 77, 797
- (WADDELL, STEENBOCK, and HART) 1929, 83, 243
- (WADDELL, STEENBOCK, ELVEHJEM, and HART) 1929, 83, 251
- (WADDELL, STEENBOCK, and HART) 1929, 84, 115
- Phosphorus metabolism, effect (COX, DODDS, WIGMAN, and MURPHY) 1931, 92, xi
- Proteins, combination (SMYTHE and SCHMIDT) 1930, 88, 241
- Retention, pregnancy (COONS) 1932, 97, 215
- Reticulocyte response, anemia, effect (ELVEHJEM and SCHULTZE) 1933, 100, xxxix
- Sugar determination, biological fluids, precipitation (STEINER, URBAN, and WEST) 1932, 98, 289

Iron—continued:

- Systems, oxidation rate and potential, correlation (MICHAELIS and SMYTHE) 1931-32, 94, 329
- Utilization, parenteral administration (BING, SAURWEIN, and MYERS) 1933, 100, xv
- Yeast, cytochrome and (COOLIDGE) 1932, 98, 755
- growth and metabolism, rôle (ELVEHJEM) 1931, 90, 111
- Iron pyrophosphates:** Catalyst in oxidations of carbohydrates and related compounds (DEGERING) 1932, 95, 409
- — — — *d*-glucose and related sugars (DEGERING and UPSON) 1931-32, 94, 423
- — — — methyl alcohol, formaldehyde, formic acid, and sodium formate (DEGERING) 1932, 95, 409
- Iron salts:** Anemia correction (WADDELL, ELVEHJEM, STEENBOCK, and HART) 1928, 77, 777
- , nitrogen conservation and hemoglobin construction, influence (DAFT) 1933, 100, xxxiv
- Blood deproteinization (SOMOGYI) 1931, 90, 725
- Gossypol toxicity, effect (GALLUP) 1928, 77, 437
- Irradiation:** Calcium balance, effect (HART, TOURTELLOTTE, and HEYL) 1928, 76, 143
- Cereals, rickets (STEENBOCK, BLACK, and THOMAS) 1929-30, 85, 585

- Isatin:** Bile salt metabolism effect (SMITH and WHIPPLE) 1930, 89, 719
- Isobarbituric acid:** Metabolism (STOKOL and CERECEDO) 1933, 100, 653, xc
- Isobutylcarbinols:** Carbinols, aliphatic, simple, configurational relationship (LEVENE and WALTY) 1931-32, 94, 367
- Configurational relationship (LEVENE and WALTY) 1931-32, 94, 367
- Secondary, configurations (LEVENE and MARKER) 1931, 90, 669
- Isodigitoxigenin:** (JACOBS and GUSTUS) 1928, 78, 573
- Isoergosterol(s):** Heat of combustion (BILLS, COX, and STEEL) 1929, 84, 655
- Vitamin D relation (BILLS, McDONALD, and COX) 1930, 87, liii
- (COX and BILLS) 1930, 88, 709
- Isogitoxigenin:** (JACOBS and GUSTUS) 1928, 79, 553
- 1929, 82, 403
- Isopropyl alcohol:** Urine, determination, in acetone presence (COOK and SMITH) 1929-30, 85, 251
- Isopropylcarbinols:** Secondary, configurations (LEVENE and MARKER) 1931, 90, 669
- Isoserine:** Dissociation constants, apparent (EMERSON, KIRK, and SCHMIDT) 1931, 92, 449

- Isostrophanthic acid:** Derivatives, dehydration and lactone cleavage (JACOBS and GUSTUS) 1929, 84, 183
- Isostrophanthidic acid:** Desoxo derivative, conversion (JACOBS, ELDERFIELD, GRAVE, and WIGNALL) 1931, 91, 617
- Isostrophanthidin:** Series, degradation (JACOBS and GUSTUS) 1928, 79, 539
- Jack bean:** *See* Bean.
- Joint effusion:** Synovial fluid (CAJORI and PEMBERTON) 1928, 76, 471
- Kahweol:** Preparation and properties (BENGIS and ANDERSON) 1932, 97, 99
- Keratin(s):** Egg-shell (CALVERY) 1932, 97, xxvi
1933, 100, 183
Neurokeratin, relation (BLOCK) 1931-32, 94, 647
Relationship (BLOCK and VICKERY) 1931, 93, 113
- Ketogenesis:** Antiketogenic values, glucose and galactose, comparison (DEUEL, GULICK, and BUTTS) 1931, 92, xxiii
- Ketone bodies:** Excretion (BEHRE) 1931, 92, 679
Urine, normal, daily variations (BEHRE) 1931, 92, 679
- Ketonuria:** Diabetes, insulin effect (BEHRE) 1931, 92, 679
Fasts, short (BEHRE)
- Ketopiperazines:** Alkali action (LEVENE and STEIGER) 1928, 76, 299
1930, 86, 703
(LEVENE, STEIGER, and MARKER) 1931, 93, 605
Chemical structure and hydrolysis rate, relation (LEVENE, BASS, and STEIGER) 1929, 81, 697
(LEVENE, ROTHEN, STEIGER, and OSAKI) 1930, 86, 723
Hydrochloric acid action (LEVENE and STEIGER) 1930, 86, 703
Hydrolysis, alkali (LEVENE, ROTHEN, STEIGER, and OSAKI) 1930, 86, 723
N-Methyl-, hydrolysis, alkali (LEVENE, BASS, and STEIGER) 1929, 81, 697
- Ketose:** Test (TASHIRO and TIETZ) 1930, 87, 307
Urine, normal (EVERETT and SHEPPARD) 1931, 92, xxv
- Ketosis:** Diabetes, threshold (McCLELLAN, SPENCER, FALK, and DU BOIS) 1928, 80, 639
Epilepsy, threshold (McCLELLAN, SPENCER, FALK, and DU BOIS) 1928, 80, 639
Fasting Eskimos (HEINBECKER) 1932-33, 99, 279
— Primates (FRIEDEMANN) 1928, 78, lxi
—, sexual variation (DEUEL and GULICK) 1932, 96, 25
Meat diet, prolonged (McCLELLAN and DU BOIS) 1930, 87, 651
Obesity, threshold (McCLELLAN, SPENCER, FALK, and

Ketosis—continued:

Sugars, comparative action
(DEUEL, GULICK, and BUTTS)
1932, 98, 333

Kidney: Ash, inorganic, anemia,
severe, effect (ROBSCHT-
ROBBINS, ELDEN, SPERRY,
and WHIPPLE)

1928, 79, 563

Bile salt output, influence
(SMITH and WHIPPLE)

1928, 80, 671

Bilirubin threshold (RABINO-
WITCH) 1932, 97, 163

Cystine, nephropathogenic ac-
tion (COX, SMYTHE, and
FISHBACK) 1929, 82, 95

Epithelium, calcification, vita-
min A deficiency, relation
(VAN LEERSUM)

1928, 79, 461

Function, meat diet, prolonged
(McCLELLAN and DU BOIS)

1930, 87, 651

—, urea elimination rate as
measure (LEWIS and MATTI-
SON) 1928, 78, lxxvi

—, water and urea, relation
(GAMBLE, MCKHANN, and
BUTLER) 1932, 97, lvii

Insufficiency (CHANUTIN, FER-
RIS, and WOOD)

1931, 92, lxxxii

—, nephrectomy, partial, liver
diet effect (CHANUTIN)

1932, 97, ciii

Respiration, cyanide effect
(MUNTWYLER and BINNS)

1932, 97, lxxviii

See also Nephrectomy.

Kynurenic acid: Production, op-
tical activity influence
(BERG) 1932, 97, lxxiii

Kynurenic acid—continued:

Production, tryptophane de-
rivatives (BERG)

1930, 87, x

1931, 91, 513

Kynurenine: Tryptophane-de-
ficient diet, supplement
(JACKSON and JACKSON)

1932, 96, 697

Lactacidogen: Hydrolysis, acid
(DAVENPORT and SACKS)

1929, 81, 469

Lactate: Blood, sodium lactate
injection effect (PARFENT-
JEV, SUNTZEFF, and SOKO-
LOFF) 1931, 93, 797

Lactate ion: Calcium ion, con-
ductivity titrations (SHEAR,
KRAMER, and RESNIKOFF)

1929, 83, 721

Lactate-pyruvate: Oxidation-re-
duction potentials, α -hydrox-
yoxidase coenzyme, effect
(BARRON and HASTINGS)

1933, 100, xi

Lactation: Blood amino acid ni-
trogen (HARDING and
DOWNS) 1929, 84, 335

— cholesterol, effect (MAY-
NARD, HARRISON, and McCAY)

1931, 92, 263

—, effect (DAVIS and BODAN-
SKY) 1932, 97, lv

— fatty acids, total, effect
(MAYNARD, HARRISON, and
McCAY) 1931, 92, 263

— lipid phosphorus (HARD-
ING and DOWNS)

1929, 84, 335

— phospholipid fatty acids, ef-
fect (MAYNARD, HARRISON,
and McCAY) 1931, 92, 263

Lactation—continued:

- Blood phosphorus distribution, dietary fat, relation, cow (McCAY and MAYNARD) 1931, 92, 273
- —, inorganic (HARDING and DOWNS) 1929, 84, 335
- plasma lipids (SCHAIBLE) 1932, 95, 79
- sugar (HARDING and DOWNS) 1929, 84, 335
- urea, dietary protein effect (PARSONS) 1930, 88, 311
- Calcium balance (HUNSCHER) 1928, 78, xxvi
- metabolism, cod liver oil influence, cow (HART, STEENBOCK, TEUT, and HUMPHREY) 1929, 84, 359
- —, diet reaction influence (GOSS and SCHMIDT) 1930, 86, 417
- —, hay, variously cured, effect, cow (HART, STEENBOCK, TEUT, and HUMPHREY) 1929, 84, 367
- —, yeast, irradiated, influence, cow (HART, STEENBOCK, KLINE, and HUMPHREY) 1930, 86, 145
- utilization (HUNSCHER) 1930, 86, 37
- (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- (DONELSON, NIMS, HUNSCHER, and MACY) 1931, 91, 675
- —, cod liver oil and yeast supplements (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- Cereal effect (ROSE and McCOLLUM) 1928, 78, 535

Lactation—continued:

- Dietary fat, blood phosphorus distribution, relation (McCAY and MAYNARD) 1931, 92, 273
- requirements (SURE) 1928, 76, 659, 673, 685
- 1928, 80, 289, 297
- (SURE and WALKER) 1931, 91, 69
- Milk vitamin B, infant mortality, rat, relation (SURE) 1928, 76, 685
- Nitrogen utilization (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- —, cod liver oil and yeast supplements (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- Parathyroid glands, relation (KOZELKA, HART, and BOHSTEDT) 1933, 100, 715
- (KOZELKA) 1933, 100, lx
- Phosphorus balance (HUNSCHER) 1928, 78, xxvi
- metabolism, diet reaction influence (GOSS and SCHMIDT) 1930, 86, 417
- —, yeast, irradiated, influence, cow (HART, STEENBOCK, KLINE, and HUMPHREY) 1930, 86, 145
- utilization (HUNSCHER) 1930, 86, 37
- (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- (DONELSON, NIMS, HUNSCHER, and MACY) 1931, 91, 675

Lactation—continued:

- Phosphorus utilization, cod liver oil and yeast supplements (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- Vegetable effect (ROSE and McCOLLUM) 1928, 78, 535
- Vitamin B complex, rice polishings, differentiation (SURE) 1928, 80, 297
- , copper supplement (SURE) 1928, 80, 289
- , effect (SURE and WALKER) 1931, 91, 69
- (SURE, SMITH, KIK, and WALKER) 1931, 92, viii
- , requirement (EVANS and BURR) 1928, 76, 263
- , —, determination (SURE) 1928, 76, 673
- , fat-soluble, storage for (SURE) 1928, 76, 659
- Lactic acid:** Absorption, intestine (CORI) 1930, 87, 13
- Apparatus (WEST) 1931, 92, 483
- Blood cell, red, formation, methylene blue and other dyes, effect (BARRON and HARROP) 1928, 79, 65
- , white, formation, methylene blue effect (BARRON) 1929, 84, 83
- , determination (NELSON and LEHNHERR) 1928, 78, xlix
- , —, gasometric (AVERY and HASTINGS) 1931-32, 94, 273
- , epinephrine and insulin effect (CORI, CORI, and BUCHWALD) 1930, 86, 375

Lactic acid—continued:

- Blood optical activity relationship, glycolysis effect (WRIGHT, HERR, and PAUL) 1928, 80, 571
- 2-Chloropropionic acid, configurational relationship (LEVENE and HALLER) 1929, 81, 703
- Chlorosuccinic acid, configurational relationship (LEVENE and HALLER) 1929, 83, 185
- Determination (KENDALL and FRIEDEMANN) 1928, 78, lxi
- (FRIEDEMANN and KENDALL) 1929, 82, 23
- (FRIEDEMANN and GRAESSER) 1933, 100, 291
- Ethylbutylcarbinol, configurational relationship (LEVENE and HALLER) 1929, 83, 579
- Exercise, ammonia rôle in neutralization (BLISS) 1929, 81, 137
- , removal (EDWARDS, MARGARIA, and DILL) 1933, 100, xxxviii
- Formation from sugar by alkali (SHAFFER and FRIEDEMANN) 1930, 86, 345
- Glucose-, cycle, diabetes (HIMWICH, CHAMBERS, KOSKOFF, and NAHUM) 1931, 90, 417
- , —, muscle and liver (HIMWICH, KOSKOFF, and NAHUM) 1929-30, 85, 571
- 2-Hydroxycaproic acid, configurational relationship (LEVENE and HALLER) 1928, 79, 475
- 2-Hydroxyvaleric acid, configurational relationship (LEVENE and HALLER) 1928, 77, 555

Lactic acid—continued:

- 3-Hydroxyvaleric acid, configurational relationship (LEVENE and HALLER) 1928, 76, 415
- Metabolism, muscle (RONZONI) 1928, 78, lv
- Methylbutylcarbinol, configurational relationship (LEVENE and HALLER) 1928, 79, 475
- 2-Methylheptanol-(6), configurational relationship (LEVENE and HALLER) 1929, 83, 177
- Methylpropylcarbinol, configurational relationship (LEVENE and HALLER) 1929, '81, 703
- Muscle, contracted (DAVENPORT, DAVENPORT, and RANSON) 1928, 79, 499
- contraction, rôle (MARGARIA, EDWARDS, HENDERSON, and DILL) 1933, 100, lxxv
- , mammalian (DAVENPORT and DAVENPORT) 1928, 76, 651
- , —, contraction and recovery (CORI and CORI) 1932-33, 99, 493
- Oxidation, α -hydroxyoxidase, gonococci, mechanism (BARON and HASTINGS) 1932, 97, lxxiii
- , —, mechanism (BARRON and HASTINGS) 1933, 100, 155
- , mechanism (CONANT and TONGBERG) 1930, 88, 701
- , methylene blue as catalyst, methemoglobin rôle (WENDEL) 1932, 97, lxxv

Lactic acid—continued:

- Oxidation to pyruvic acid by methylene blue, blood effect (WENDEL and SHAFFER) 1930, 87, xx
- Production, epinephrine influence (CORI and CORI) 1929, 84, 683
- Propylbutylcarbinol, configurational relationship (LEVENE and HALLER) 1929, 83, 579
- Sarco-, preparation (FREUDENBERG) 1932-33, 99, 153
- Sea urchin eggs, carbohydrate and (PERLZWEIG and BARON) 1928, 79, 19
- Sugar solutions, determination (FRIEDEMANN) 1928, 76, 75
- d*-Lactic acid: Liver glycogen formation (CORI and CORI) 1929, 81, 389
- Muscle glycogen, conversion, exercise effect (LONG and HORSFALL) 1932, 95, 715
- l*-Lactic acid: Liver glycogen formation (CORI and CORI) 1929, 81, 389
- Lactobacillus acidophilus:**
- Chemistry (CROWDER and ANDERSON) 1932, 97, 393
- Fat, dihydroxystearic acid, free (CROWDER and ANDERSON) 1932, 97, 393
- Lactone: Unsaturated, hydrogenation to desoxy acids (JACOBS and SCOTT)**
- 1930, 87, 601
- 1931, 93, 139
- Lactose: Calcium absorption, influence (ROBINSON and DUNCAN)** 1931, 92, 435
- Fate (CORLEY) 1929, 81, 541

Lactose—continued:

- Ingestion effect (ROBINSON, HUFFMAN, and MASON) 1929, 84, 257
- Intestine hydrogen ion concentration, effect (ROBINSON and DUNCAN) 1931, 92, 435
- Metabolism (CORLEY) 1928, 76, 31
(BLANCO) 1928, 79, 667
(CORLEY) 1929, 81, 541
—, women (WATKINS) 1928, 80, 33
- Nutrition, rôle (KLINE, KEENAN, ELVEHJEM, and HART) 1932, 98, 121
- Tetany prevention, parathyroidectomy (GREENWALD and GROSS) 1929, 82, 531
- Urine, glucose and, determination (KLEINER and TAUBER) 1933, 100, 749
- Langerhans' islands:** Monkfish (JORPES) 1930, 86, 469
- Lanolin:** Sterols, free, ultraviolet irradiation, effect (BERNHARD and DREKTER) 1931, 93, 1
- Lard:** Fatty acids, unsaturated, highly, menhaden oil-fed pigs (BROWN) 1931, 90, 133
- Laurin:** Tri-, metabolism (POWELL) 1930, 89, 547
- Lead:** Blood calcium precipitation (BISCHOFF and MAXWELL) 1928, 79, 5
Excretion, urine (MILLET) 1929, 83, 265
- Leaf:** Vitamin A, size relation (McLAUGHLIN) 1929, 84, 249

Leche de higueron: Ficin (ROBINS) 1930, 87, 251

Lecithin: Blood, determination, oxidative (BLOOR) 1929, 82, 273

Liver, fatty acids (SNIDER and BLOOR) 1932, 97, xxxiii

1932–33, 99, 555

Phosphorus, blood serum, beef tissue feeding (MULLER) 1929, 84, 345

Tissue, determination, oxidative (BLOOR) 1929, 82, 273

Leg weakness: Ergosterol, activated, prevention (MASSENGALE and NUSSMEIER) 1930, 87, 423

Lemon: Juice, vitamin C concentrates, preparation (SVIRBELY and KING) 1931–32, 94, 483

(SMITH and KING) 1931–32, 94, 491

—, — — —, preparation and properties (GRETTE and KING) 1929, 84, 771

—, — — —, storage (SMITH and KING) 1931–32, 94, 491

Pectic acid, *d*-galacturonic acid preparation (LINK and DICKSON) 1930, 86, 491

Leprosy bacillus: Lipids, separation (UYEI and ANDERSON) 1931–32, 94, 653

Phosphatide fraction (ANDERSON and UYEI) 1932, 97, 617

Lettuce: Antioxidant, natural, isolation (OLCOVICH and MATTILL) 1931, 92, xxxi

Carotene (OLCOVICH and MATTILL) 1931, 91, 105

Lettuce—continued:

Lipids, unsaponifiable (OLCOVICH and MATTILL)

1931, 91, 105

—, —, antioxidant (OLCOTT and MATTILL) 1931, 93, 65

—, —, fractionation (OLCOTT and MATTILL) 1931, 93, 59

Vitamin E concentrate, preparation and properties (OLCOTT) 1932, 97, x

Leucine: Absorption, gastrointestinal tract (CHASE)

1933, 100, xxvii

Di-, hydrochloride (BARNETT) 1933, 100, 543

Insulin, isolation (JENSEN) 1928, 78, xli

Isolation (BARNETT) 1933, 100, 543

Isomeric compounds, ammonia and hydrogen chloridedissociation pressures, thermodynamics (CZARNETZKY and SCHMIDT) 1932, 97, 333

Isomers, absorption, gastrointestinal tract (CHASE)

1933, 100, xxvii

Nor-, identity and isolation (CZARNETZKY and SCHMIDT)

1932, 97, 333

Leucocyte: *See* Blood cell, white.

Levulose: Blood, determination (CORLEY) 1928, 78, lx

—, —, colorimetric (CORLEY) 1929, 81, 81

Dextrose and, galactose tolerance, effect (CORLEY)

1928, 76, 31

Metabolism (CORLEY) 1928, 78, lx

1929, 81, 81

Test (TASHIRO and TIETZ) 1930, 87, 307

Levulose—continued:

Urine, determination (CORLEY) 1928, 78, lx

—, —, colorimetric (CORLEY) 1929, 81, 81

See also Fructose.

Light: Asparagus vitamin A, relation (CRIST and DYE)

1931, 91, 127

Pigment formation, apple, effect (PEARCE and STREETER)

1931, 92, 743

Polarized, starch hydrolysis, effect (BUNKER and ANDERSON)

1928, 77, 473

(NAVEZ and RUBENSTEIN) 1928, 80, 503

Starch hydrolysis, effect (NAVEZ and RUBENSTEIN)

1932, 95, 645

Vitamin A chromogenic substance, effect (NORRIS and CHURCH)

1930, 89, 421

— synthesis, plants, effect (HELLER) 1928, 76, 499

See also Ultra-violet light.

Lignin: Hippuric acid formation, effect (CSONKA, PHILLIPS, and JONES)

1928, 78, xxiv

Metabolism (CSONKA, PHILLIPS, and JONES)

1929–30, 85, 65

Lignoceric acid: Oxidation (TAYLOR and LEVENE)

1928, 80, 609

Limulus polyphemus: Amebocyte, urease extraction

(LOEB, LORBERBLATT, and FIELD) 1928, 78, 417

Blood, chloride distribution, sea water and, hemocyanin influence (THOMAS)

1929, 83, 71

Limulus polyphemus—continued:

- Blood, hemocyanin buffer action (REDFIELD, HUMPHREYS, and INGALLS) 1929, 82, 759
- , sea water, relation (DAILEY, FREMONT-SMITH, and CARROLL) 1931, 93, 17
- Hemocyanin, acid-combining capacity and dibasic amino acid content (REDFIELD and MASON) 1928, 77, 451
- , copper content and minimal molecular weight (REDFIELD, COOLIDGE, and SHOTTS) 1928, 76, 185
- Line test: Vitamin D, critique (BILLS, HONEYWELL, WIRICK, and NUSSMEIER) 1931, 90, 619
- Linoleic acid: Oxidation, carotene and vitamin A effect (MONAGHAN and SCHMITT) 1932, 96, 387
- Linseed oil: Emulsions, oxidation, hematin and potassium cyanide effect (WRIGHT and VAN ALSTYNE) 1931, 93, 71
- Lipase: Actions, specificities (FALK) 1932, 96, 53
- Copper sulfate influence (PARFENTJEV, DEVRIENT, and SOKOLOFF) 1931, 92, 33
- Organic compounds, chemical constitution, relation (GLICK) 1932, 97, lxxvii
- Pancreas, activation, mechanism (GLICK and KING) 1932, 97, 675
- , —, surface effects, relationship (GLICK and KING) 1932, 97, 675
- Pneumococcus Types I and II, actions (FALK and McGuire) 1932, 97, 651

Lipase—continued:

- Sodium taurocholate influence (PARFENTJEV, DEVRIENT, and SOKOLOFF) 1931, 92, 33
- Lipemia: Anemia, hemorrhagic (JOHANSEN) 1930, 88, 669
- Lipid(s): Blood, balanced meal effect (MAN and GILDEA) 1932-33, 99, 61
- , diet and (BLOOR) 1932, 95, 633
- , fat ingestion effect (MAN and GILDEA) 1932-33, 99, 61
- , foodstuff influence (McCLURE and HUNTSINGER) 1928, 76, 1
- plasma, determination (BLOOR) 1928, 77, 53
- —, fasting (GLUSKER) 1930, 88, 381
- —, lactating and non-lactating animals (SCHAIBLE) 1932, 95, 79
- —, postabsorptive state (GLUSKER) 1930, 88, 381
- serum, osmotic pressure relation (FISHBERG) 1929, 81, 205
- Brain, fatty acid, unsaturated, highly, new (BROWN) 1929, 83, 783
- Central nervous system, formalin fixation influence (WEIL) 1929, 83, 601
- Colon bacillus synthesis (ECKSTEIN and SOULE) 1931, 91, 395
- Corpus luteum (BLOOR, OKEY, and CORNER) 1930, 86, 291
- Epinephrine-, combination, suprarenal (KOEHLER and EICHELBERGER) 1930, 87, xxxviii

Lipid(s)—continued:

- Ether-soluble, tubercle bacillus, carbohydrates (ANDERSON and ROBERTS) 1930, 87, xvii
- Excretion (SPERRY) 1929, 81, 299
1929-30, 85, 455
1932, 96, 759
(SPERRY and ANGEVINE) 1932, 96, 769
- , epinephrine effect (HILL and KOEHLER) 1932, 98, 185
- Feces bacteria, partition (SPERRY) 1929, 81, 299
- , bile fistula, partition (SPERRY) 1929-30, 85, 455
- , distribution (SPERRY) 1928, 78, xlv
- , partition (SPERRY) 1929, 81, 299
- Free serum, preparation (GREENWALD and LEVY) 1930, 87, 281
- Intestinal mucosa (SPERRY) 1931, 92, xxxiii
1932, 96, 759
- Iodine number, determination (YASUDA) 1931-32, 94, 401
- Leprosy bacillus, separation (UYEI and ANDERSON) 1931-32, 94, 653
- Liver (THEIS) 1928, 76, 107
- , distribution, disease effect (THEIS) 1929, 82, 327
- , fat metabolism and (SINCLAIR) 1933, 100, lxxxvii
- , fatty acid, unsaturated, highly (BROWN) 1928, 80, 455
- , insulin effect (THEIS) 1928, 77, 75

Lipid(s)—continued:

- Liver, unsaponifiable constituents (FREYTAG and SMITH) 1931, 92, xcii
- Metabolism, avitaminosis, vitamin B effect (SURE, KIRK, and CHURCH) 1932, 97, vi
- Mold (PRUESS and STRONG) 1933, 100, lxxx
- Physiological activity, relation (BLOOR, OKEY, and CORNER) 1930, 86, 307
- Secretion, intestine (SPERRY and ANGEVINE) 1930, 87, xxii
1932, 96, 769
- Solubility, fatty acids, saturated (BODANSKY) 1928, 79, 241
- Spleen, arachidonic acid in (BROWN) 1929, 83, 777
- Suprarenal, arachidonic acid in (BROWN) 1929, 83, 777
- Thyroid, arachidonic acid in (BROWN) 1929, 83, 777
- Timothy bacillus (PANGBORN and ANDERSON) 1931, 92, xxxii
- —, separation (CHARGAFF, PANGBORN, and ANDERSON) 1931, 90, 45
- Tissue (BLOOR) 1928, 78, iii
- , animal, unsaturation and composition, relationship (SINCLAIR) 1932, 97, xxxiv
- , cholesterol-rich diets, effect (OKEY) 1933, 100, lxxv
- , microdetermination (OSATO and HEKI) 1930, 87, 541
- Tubercle bacillus, avian, separation (ANDERSON and ROBERTS) 1929-30, 85, 509

Lipid(s)—continued:

- Tubercle bacillus, bovine (ANDERSON and ROBERTS) 1929-30, 85, 529
- , chemistry (ANDERSON) 1929, 83, 169, 505 (ANDERSON and CHARGAFF) 1929, 84, 703 1929-30, 85, 77 (ANDERSON) 1929-30, 85, 327, 339, 351 (ANDERSON and ROBERTS) 1929-30, 85, 509, 519, 529 1930, 89, 599, 611 (ROBERTS and ANDERSON) 1931, 90, 33 (CHARGAFF, PANGBORN, and ANDERSON) 1931, 90, 45 (BURT and ANDERSON) 1931-32, 94, 451 (PANGBORN and ANDERSON) 1931-32, 94, 465 (UYEI and ANDERSON) 1931-32, 94, 653 (ANDERSON and UYEI) 1932, 97, 617 (ANDERSON) 1932, 97, 639 (PANGBORN, CHARGAFF, and ANDERSON) 1932, 98, 43
- Unsaponifiable, lettuce (OLCOVICH and MATTILL) 1931, 91, 105
- , —, antioxidant (OLCOTT and MATTILL) 1931, 93, 65
- , —, fractionation (OLCOTT and MATTILL) 1931, 93, 59
- , liver, antioxygens (FREYTAG and SMITH) 1933, 100, 319
- , —, beef (FREYTAG and SMITH) 1932, 97, xxxviii

Lipid(s)—continued:

- Unsaponifiable, liver, separation and crystalline fractions (FREYTAG and SMITH) 1933, 100, 309
- , —, vitamins A and E (FREYTAG and SMITH) 1933, 100, 319
- Uterus, mucosa (OKEY, BLOOR, and CORNER) 1930, 86, 307
- Xanthoma (ECKSTEIN and WILE) 1930, 87, 311
- See also* Phospholipids.
- Lipochromes:** (CONNOR) 1928, 77, 619
- Lipoid phosphorus:** Blood, determination, colorimetric (HARNES) 1928, 77, 405 (LEIBOFF) 1928, 80, 211
- , lactation (HARDING and DOWNS) 1929, 84, 335
- Liquor folliculi:** Extracts, theelin and theelol, comparison (CURTIS) 1932, 97, liv
- Lithium pyruvate:** Preparation (WENDEL) 1931-32, 94, 717
- Liver:** Acid active in pernicious anemia, crystalline derivative (WEST and HOWE) 1930, 88, 427
- in, crystalline derivative (WEST and HOWE) 1931-32, 94, 611
- , tribasic, convertible into pyrrole derivatives (DAKIN and WEST) 1931, 92, 117
- Acute yellow atrophy, biochemical findings (RABINOWITCH) 1929, 83, 333
- Anemia, pernicious (COHN, MINOT, ALLES, and SALTER) 1928, 77, 325

Liver—continued:

- Anemia, pernicious (COHN, McMEEKEN, and MINOT) 1930, 87, xlix
- , —, effective principle, preparation (WALDEN and CLOWES) 1932, 97, xi
- , severe, effect (SPERRY, ELDEN, ROBSCHUIT-ROBBINS, and WHIPPLE) 1929, 81, 251
- Ash, inorganic, anemia, severe, effect (ROBSCHUIT-ROBBINS, ELDEN, SPERRY, and WHIPPLE) 1928, 79, 563
- Beef, lipid distribution (THEIS) 1928, 76, 107
- Bile salt output, influence (SMITH and WHIPPLE) 1928, 80, 671
- Carotene stability (McDONALD) 1933, 100, lxix
- Cod, sex variations (HAWK) 1930, 87, xlviii
- Containing diet, fatty livers, occurrence (BLATHERWICK, MEDLAR, BRADSHAW, POST, and SAWYER) 1932, 97, xxxiii
- Copper (MEYER and EGGERT) 1932-33, 99, 265
- , infant (MORRISON and NASH) 1930, 87, xl
1930, 88, 479
- Creatine (CHANUTIN and BEARD) 1928, 78, 167
- Diet, kidney insufficiency, nephrectomy, partial, effect (CHANUTIN) 1932, 97, ciii
- Dietary principle, new (SEEGERS and SMITH) 1933, 100, lxxxvii

Liver—continued:

- Disease, blood sugar curves (FRIEDENSON, ROSENBAUM, THALHEIMER, and PETERS) 1928, 80, 269
- Esterase, inhibition, and alcohols, aliphatic, saturated, chemical constitution, relation (GLICK and KING) 1931-32, 94, 497
- , —, — organic compounds, chemical constitution, relation (GLICK and KING) 1932, 95, 477
- Extract (LOONEY) 1928, 78, xi
- , anemia, pernicious, action (HEIDELBERGER, ROSENTHAL, COHN, and FRIEDMAN) 1928, 78, lxvi
- , iron and copper (MEYER and EGGERT) 1932-33, 99, 265
- Fat, neutral, beef (BLOOR and SNIDER) 1930, 87, 399
- , sexual variation (DEUEL) 1933, 100, xxxv
- Fatty, dietary production (BLATHERWICK, MEDLAR, BRADSHAW, POST, and SAWYER) 1933, 100, xviii
- , liver-containing diets, occurrence (BLATHERWICK, MEDLAR, BRADSHAW, POST, and SAWYER) 1932, 97, xxxiii
- Glucose-lactic acid cycle (HIMWICH, KOSKOFF, and NAHUM) 1929-30, 85, 571
- Glycogen (SAHYUN and ALBERG) 1930, 89, 33

Liver—continued:

- Glycogen, epinephrine effect
(CORI and CORI) 1929-30, 85, 275
(CORI, CORI, and BUCHWALD) 1930, 86, 375
— formation, glycerol administration (CATRON and LEWIS) 1929, 84, 553
— —, *d*- and *l*-lactic acid (CORI and CORI) 1929, 81, 389
—, insulin effect (CORI and CORI) 1929-30, 85, 275
(CORI, CORI, and BUCHWALD) 1930, 86, 375
(BODO and NEUWIRTH) 1931, 92, xxv
—, preparation (SAHYUN and ALSBERG) 1930, 89, 33
—, sexual variation (DEUEL) 1933, 100, xxxv
Hemoglobin regeneration
(ROSE and KUNG) 1932, 98, 417
Injury, benzoic acid conjugation, effect (QUICK and COOPER) 1932-33, 99, 119
—, bile salt metabolism effect (WHIPPLE and SMITH) 1930, 89, 727
Iron (MEYER and EGGERT) 1932-33, 99, 265
Lecithin, fatty acids (SNIDER and BLOOR) 1932, 97, xxxiii
1932-33, 99, 555
Lipids (THEIS) 1928, 76, 107
—, distribution, disease effect (THEIS) 1929, 82, 327
—, fat metabolism and (SINCLAIR) 1933, 100, lxxxvii
—, fatty acid, unsaturated, highly (BROWN) 1928, 80, 455

Liver—continued:

- Lipids, insulin effect (THEIS) 1928, 77, 75
—, unsaponifiable, antioxidants (FREYTAG and SMITH) 1933, 100, 319
—, —, beef (FREYTAG and SMITH) 1932, 97, xxxviii
—, — constituents (FREYTAG and SMITH) 1931, 92, xcii
—, —, separation and crystalline fractions (FREYTAG and SMITH) 1933, 100, 309
—, —, vitamins A and E (FREYTAG and SMITH) 1933, 100, 319
Oxidations, colloidal sulfur, action (BERNHEIM and BERNHEIM) 1932, 96, 331
Oxyproline oxidation (BERNHEIM and BERNHEIM) 1932, 96, 325
Phospholipids, fat absorption, rôle (SINCLAIR) 1929, 82, 117
Phosphoric ester, rickets (KAY) 1932-33, 99, 85
Proline oxidation (BERNHEIM and BERNHEIM) 1932, 96, 325
Respiration, cyanide effect (MUNTWYLER and BINNS) 1932, 97, lxxviii
Stimulation, bile salt metabolism effect (WHIPPLE and SMITH) 1930, 89, 727
Sugar, free (POWER and CLAWSON) 1928, 78, lvi
Vitamin A transfer rate to (NELSON, WALKER, and JONES) 1932, 97, vi
Water storage, glycogen relation (BRIDGE and BRIDGES) 1931, 93, 181

Liver—continued:

Water storage, glycogen relation (PUCKETT and WILEY)

1932, 96, 367

(MACKEY and BERGMAN)

1932, 96, 373

(BRIDGE and BRIDGES)

1932, 96, 381

See also Hepatectomy.

Liver oils: Fish, natural, vitamin

D, irradiated ergosterol and

yeast, comparison (STEEN-

BOCK, KLETZIEN, and HAL-

PIN) 1932, 97, 249

—, toxic effect and vitamin B

(NORRIS and CHURCH)

1930, 89, 437

Livetin: Amino acids, basic

(JUKES and KAY)

1932, 98, 783

Lophius piscatorius: *See* Goose-

fish, Monkfish.

Luciferase: Luciferin oxidation

(HARVEY) 1928, 78, 369

Luciferin: Oxidation (HARVEY)

1928, 78, 369

Lung-fish: Metabolism (SMITH)

1930, 88, 97

Lusk, Graham: Obituary

1932, 98, preceding p. 1

Lycopin: Hydrogenation (SMITH)

1932, 96, 35

Lymph system: Fat transport,

fasting and phlorhizin poi-

soning (RONY, MORTIMER,

and IVY) 1932, 96, 737

Lysine: Crystallization (VICK-

BRY and LEAVENWORTH)

1928, 76, 437

Dissociation constants, appar-

ent (SCHMIDT, KIRK, and

APPLEMAN) 1930, 88, 285

Lysine—continued:

Preparation, blood corpuscle

paste, hydrolyzed (COX,

KING, and BERG)

1929, 81, 755

Lyxoside: Triacetylmethyl-, hy-

drolysis rate (LEVENE and

WOLFROM) 1928, 79, 471

—, isomers (LEVENE and WOL-

FROM) 1928, 78, 525

M

Macrocystis pyrifera: Carbohy-

drate acid sulfate (NELSON

and CRETCHER)

1931-32, 94, 147

Magnesium: Biological mate-

rials, determination, Mc-

Cradden method (FREAR and

KAHLENBERG)

1933, 100, 85

Blood cell, red (GREENBERG,

LUCIA, MACKAY, and TUFTS)

1933, 100, 139

—, determination, 8-hydroxy-

quinoline (GREENBERG and

MACKAY) 1932, 96, 419

(BOMSKOV) 1932-33, 99, 17

(GREENBERG and MACKAY)

1932-33, 99, 19

—, parathyroid extract effect

(GREENBERG and MACKAY)

1932, 98, 765

— plasma (GREENBERG, LU-

CIA, MACKAY, and TUFTS)

1933, 100, 139

Bone, determination (WASH-

BURN and SHEAR)

1932-33, 99, 21

Calcium and, relations (ELMS-

LIE and STEENBOCK)

1929, 82, 611

Magnesium—continued:

Deficiency (KRUSE, ORENT,
and McCOLLUM)

1932, 96, 519

1933, 100, 603

Deprivation, blood effect
(KRUSE, ORENT, and Mc-
COLLUM)

1932, 97, iii

1933, 100, 603

— effect (McCOLLUM and
ORENT)

1931, 92, xxx

(KRUSE, ORENT, and McCol-
LUM)

1932, 96, 519

Dietary, variations, effect
(HAAG and PALMER)

1928, 76, 367

Metabolism, magnesium lac-
tate effect (CARSWELL and
WINTER)

1931, 93, 411

Milk, determination (SANDERS)

1931, 90, 747

Phosphatase and (JENNER and
KAY)

1931, 93, 733

Retention, pregnancy (COONS
and BLUNT)

1930, 86, 1

Magnesium lactate: Magnesium
and calcium metabolism, ef-
fect (CARSWELL and WIN-
TER)

1931, 93, 411

Magnesium salts: Bone solubil-
ity in solutions (FORBES)

1931, 93, 255

Maize: *Clostridium acetobutylicum*
fermentation, acids (STILES,
PETERSON, and FRED)

1929, 84, 437

Endosperm, yellow, vitamin A,
relation (HAUGE and TROST)

1930, 86, 167

Glutelin, optical rotation
(CSONKA, HORN, and JONES)

1930, 89, 267

Maize—continued:

Vitamin A distribution, inherit-
ance (HAUGE and TROST)

1928, 80, 107

(HAUGE) 1930, 86, 161

(HAUGE and TROST)

1930, 86, 167

— —, hybrid red (HAUGE)

1930, 86, 161

— —, yellow endosperm, rela-
tion (HAUGE and TROST)

1930, 86, 167

L-Malic acid: Physical constants
(BORSOOK and SCHOTT)

1931, 92, 559

Malt: Amylase extraction from
alumina gel, ion influence
(CALDWELL and DOEBBEL-
ING)

1932, 98, 553

Maltase: Gluco-, mammary
gland (KLEINER and TAU-
BER)

1932-33, 99, 241

Mammary gland: Glucomaltase
(KLEINER and TAUBER)

1932-33, 99, 241

Mandelic acid: Metabolism
(QUICK)

1928, 80, 515

Manganese: Anemia, nutritional
(KRAUSS)

1931, 90, 267

—, —, supplement variations
(MITCHELL and MILLER)

1931, 92, 421

Animal materials, determina-
tion (SKINNER and PETER-
SON)

1930, 88, 347

Cobalt polycythemia, effect
(ORTEN, UNDERHILL, MU-
GRAGE, and LEWIS)

1932-33, 99, 465

-Copper-iron complex, hemo-
globin building (TITUS, CAVE,
and HUGHES)

1928, 80, 565

Manganese—continued:

- Deprivation effects (ORENT and McCOLLUM) 1931, 92, 651
- Feedingstuff (SKINNER and PETERSON) 1928, 79, 679
- Free diet, estrus effect (ORENT and McCOLLUM) 1932, 98, 101
- Hemoglobin building, influence (TITUS and HUGHES) 1929, 83, 463
- Metabolism (SKINNER, PETERSON, and STEENBOCK) 1931, 90, 65
- Milk, diet effect (KEMMERER and TODD) 1931-32, 94, 317
- Nutrition relation (KEMMERER, ELVEHJEM, and HART) 1931, 92, 623
- Storage, body (TITUS and HUGHES) 1929, 83, 463
- Mannitol:** Isolation and identification, *Aspergillus fischeri* (PRUESS, PETERSON, and FRED) 1932, 97, 483
- d*-Mannosaccharic acid: *d*-Mannuronic acid synthesis from (NIEMANN and LINK) 1933, 100, 407
- Mannose:** Copper reduction values (MOORE, LLOYD, and BURGET) 1932, 97, 345
- Tubercle bacillus phosphatide fraction (ANDERSON and ROBERTS) 1930, 89, 611
- d*-Mannose: Tubercle bacillus culture medium (RENFREW) 1930, 89, 619
- D*-Mannose: Seaweed, and *L*-fucose separation (MANSKE) 1930, 86, 571

- Mannose pentaacetates:** Ring structure (LEVENE and TIPPSON) 1931, 90, 89
- Mannoside:** Diacetone methyl-, α and β forms (LEVENE and MEYER) 1928, 78, 363
- Tetraacetylmethyl-, hydrolysis rate (LEVENE and WOLFROM) 1928, 79, 471
- Tetramethyl- γ -methyl-, chemical constitution (LEVENE and MEYER) 1928, 76, 809
- d*-Mannuronic acid: α - and β -, isolation (SCHOEFFEL and LINK) 1933, 100, 397
- Lactone, preparation (SCHOEFFEL and LINK) 1932, 95, 213
- d*-Mannosaccharic acid synthesis (NIEMANN and LINK) 1933, 100, 407
- Meat:** Bile salt output, influence (SMITH and WHIPPLE) 1928, 80, 671
- Diet, blood constituents, effect (TOLSTOR) 1929, 83, 753
- , carbohydrate tolerance (TOLSTOR) 1929, 83, 747
- , prolonged, kidney function and ketosis (McCLELLAN and DU BOIS) 1930, 87, 651
- , —, nitrogen, calcium, and phosphorus metabolism (McCLELLAN, RUFF, and TOSCANI) 1930, 87, 669
- , —, respiratory metabolism (McCLELLAN, SPENCER, and FALK) 1931, 93, 419
- Extractives, bile salt output, influence (SMITH and WHIPPLE) 1928, 80, 671

Meat—continued:

- Protein, bile salt metabolism
effect (SMITH and WHIPPLE)
1930, 89, 689
- Specific dynamic action, hypo-
physectomy, effect (GAEB-
LER) 1929, 81, 41
- Melibiose:** Chemical constitu-
tion (LEVENE and JORPES)
1930, 86, 403
- Menhaden oil:** -Fed pigs, lard,
fatty acids, unsaturated,
highly (BROWN)
1931, 90, 133
- Menstruation:** Blood composi-
tion, effect (OKEY)
1928, 78, xiii
- Mental depression:** Blood
plasma fats (HILL, LONG,
and SLIGHT) 1931, 92, lxxxi
- Mercaptan:** Benzoylaminocinna-
mic acid derivatives, addi-
tion (NICOLET)
1932, 95, 389
- Mercuric salts:** Cystine, action
(SIMONSEN)
1931-32, 94, 323
- Thiol and sulfonic acids, reac-
tion with dithio acids (PREIS-
LER and PREISLER)
1932, 95, 181
- Mercury:** Body fluids, deter-
mination, electrolytic
(YOUNG and TAYLOR)
1929, 84, 377
- Derivatives, cysteine (AN-
DREWS and WYMAN)
1930, 87, 427
- Electrode, cysteine potential
at, mechanism (BARRON,
FLEXNER, and MICHAELIS)
1929, 81, 743

Mercury—continued:

- Filtrates, alkaline, nitrogen in
(EVERETT and SHEPPARD)
1932, 97, lxxxi
- Tissues, determination, elec-
trolytic (YOUNG and TAYLOR)
1929, 84, 377
- Mesocystine:** Characterization
and isolation (LORING and
DU VIGNEAUD)
1932, 97, xxiv
- Metabolism:** (See note on p. 178)
- Adrenal cortical hormone, ef-
fects (HARROP, SWINGLE, and
PFIFFNER) 1931, 92, lvi
- Basal. See Basal metabolism.
- Cystinuria (LEWIS and LOUGH)
1929, 81, 285
- Dextrin ingestion, effect (WES-
SON) 1930, 87, liii
- Embryo (CALVERY)
1928, 77, 489, 497
1929, 83, 231, 649
1930, 87, 691
1932, 95, 297
- Energy, diseases, blood sulfur
(KOEHLER) 1928, 78, lxx
- Epinephrine, prolonged ad-
ministration effect (KOEH-
LER, BISCHOFF, and HILL)
1931, 92, li
- Eskimo (HEINBECKER)
1928, 80, 461
1931, 93, 327
- Fat-deficient diet, effect (WES-
SON and BURR)
1931, 91, 525
- Glucose and dihydroxyace-
tone effect, comparison (Mc-
CLELLAN, BIASOTTI, and
HANNON) 1928, 78, 719
- Glycine effect (ADAMS)
1933, 100, iii

Metabolism—continued:

- Growth relation (CERECEDO and STEKOL) 1932, 97, lx
Infantilism, Lorain (WANG, HOGDEN, KAUCHER, and WING) 1933, 100, xcix
Lung-fish (SMITH) 1930, 88, 97
Morphine withdrawal, changes (BARBOUR, GREGG, and HUNTER) 1930, 87, xlv
Phlorhizin glycosuria, thyroidectomy effect (DANN, CHAMBERS, and LUSK) 1931-32, 94, 511
Pneumonia (GREENWALD) 1929-30, 85, 447
Protein split-products, effect on (RAPPORT and BEARD) 1928, 80, 413
Reproductive cycle, women (MACY, HUNSCHER, NIMS, and McCOSH) 1930, 86, 17 (HUNSCHER) 1930, 86, 37 (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59 (DONELSON, NIMS, HUNSCHER, and MACY) 1931, 91, 675 (HUNSCHER, DONELSON, NIMS, KENTON, and MACY) 1932-33, 99, 507
Respiratory. *See* Respiratory metabolism.
Tissue (SHORR, LOEBEL, and RICHARDSON) 1930, 86, 529 (RICHARDSON, SHORR, and LOEBEL) 1930, 86, 551
Total, snake, king (KOCHER) 1932, 97, lxxi

Metabolism—continued:

- Women (OKEY, STEWART, and GREENWOOD) 1930, 87, 91 (ERIKSON and OKEY) 1931, 91, 715
Metabolites: Oxidation (WITZEMANN) 1932, 95, 219, 247
Metal salts: Heavy, blood filtrates, preparation (SOMOGYI) 1930, 87, xxxii
Metals: Anemia, nutritional, iron supplement (UNDERHILL, ORTEN, and LEWIS) 1931, 91, 13
—, —, prevention effect (ORTEN, UNDERHILL, and LEWIS) 1932, 96, 1
Metaphysis: Ash (HESS, BERLINER, and WEINSTOCK) 1931-32, 94, 9
Methane(s): Derivatives containing propyl, isopropyl, isobutyl, isoamyl, and isohexyl groups, optically active, configurational relationship (LEVENE and MARKER) 1931, 91, 405
Methylisobutyl-, series, hydrocarbons, optical rotations (LEVENE and MARKER) 1931, 92, 455
Trisubstituted, with phenyl group, optically active, configurational relationship (LEVENE and MARKER) 1931, 93, 749
Methemoglobin: Crystalline, preparation and properties (LEVY) 1930, 89, 173
Determination (CONANT, SCOTT, and DOUGLASS) 1928, 76, 223

Methemoglobin—continued:

Determination, bicolorimetric
(CLARK and GIBSON)

1933, 100, 205

—, gasometric (VAN SLYKE
and HILLER) 1929, 84, 205

Hemoglobin oxidation to, spec-
trophotometric study (Co-
NANT and SCOTT)

1928, 76, 207

Hemoglobin-, system, oxida-
tion potential, determination
(CONANT and PAPPENHEI-
MER)

1932, 98, 57

Lactic acid oxidation, methy-
lene blue as catalyst (WEN-
DEL)

1932, 97, lxxv

Solutions, bicarbonate ion ac-
tivity coefficient (STADIE and
HAWES)

1928, 77, 265

—, carbonic acid dissociation
constant, apparent, first
(STADIE and HAWES)

1928, 77, 265

Systems containing, hydrogen
ion activity determination,
hydrogen electrode (STADIE
and HAWES)

1928, 77, 241

Methionine: Cystine-deficient
diet, supplement (JACKSON
and BLOCK)

1932, 98, 465

Decomposition, cystine homo-
logue formation (BUTZ and
DU VIGNEAUD)

1932-33, 99, 135

—, thermal, acid solution
(BUTZ)

1932, 97, xxi

-Deficient diet, production
(WHITE and JACKSON)

1933, 100, ciii

Dissociation constants, appar-
ent (EMERSON, KIRK, and
SCHMIDT)

1931, 92, 449

Methionine—continued:

Isolation, enzyme hydrolysis
(DU VIGNEAUD and MEYER)

1931-32, 94, 641

Metabolism (BLOCK and JACK-
SON)

1932, 97, cvi

(JACKSON and BLOCK)

1932, 98, 465

Proteins, determination
(BAERNSTEIN)

1932, 97, 663

dl-Methionine: Metabolism
(VIRTUE and LEWIS)

1933, 100, xcv

Urine sulfur, monobromoben-
zene ingestion, relation
(WHITE and LEWIS)

1932, 98, 607

Methoxybenzoic acid: Conjugation
(QUICK)

1932, 97, 403

Methyl alcohol: Oxidation,
catalytic (DEGERING)

1932, 95, 409

Methylamine urate: Gelation,
electrolyte influence (YOUNG
and MUSGRAVE)

1931, 92, li

Methylbenzylcarbinol: Hydro-
genation (LEVENE and
STEVENS)

1930, 89, 471

Methylbutylcarbinol: Lactic
acid, configurational rela-
tionship (LEVENE and HAL-
LER)

1928, 79, 475

Methylcyclohydroxyacetone:
Condensation products (LE-
VENE and WALT)

1929, 84, 39

Methylcyclohexylcarbinols: Con-
figurational relationship (LE-
VENE and MARKER)

1932, 97, 379

1932-33, 99, 321

Methylcyclohexylcarbinols—continued:

Homologues, configurational relationship (LEVENE and MARKER) 1932, 97, 379
1932-33, 99, 321

Methylene blue: Cells, mechanism action (BARRON)

1929, 81, 445

Cyanide poisoning, action (WENDEL) 1933, 100, c

Glycolysis, erythrocytes, effect (BARRON and HARROP)

1928, 79, 65

—, leucocytes, effect (BARRON) 1929, 84, 83

Lactic acid formation, erythrocytes, effect (BARRON and HARROP) 1928, 79, 65

— — —, leucocytes, effect (BARRON) 1929, 84, 83

— — — oxidation, methemoglobin rôle in catalysis by (WENDEL) 1932, 97, lxxv

— — — to pyruvic acid, blood effect (WENDEL and SHAFER) 1930, 87, xx

Oxygen consumption, leucocytes, effect (BARRON)

1929, 84, 83

— —, sea urchin and starfish eggs, effect (BARRON)

1929, 81, 445

Sugar peroxidation (HARNED) 1928, 78, lii

Winkler titration (MARSH) 1932, 95, 25

Methyl-*d*-galacturonide: Preparation (MORELL and LINK)

1933, 100, 385

Methylglucodesoside: Ring structure (LEVENE and MIKESKA)

1930, 88, 791

5-Methylglucose: Ohle and von Vargha, chemical constitution (LEVENE and RAYMOND)

1932, 97, 751

3-Methyl-*d*-glucose: γ -Glucoside of (LEVENE and DILLON)

1931, 92, 769

Methylglycosides: Hexuronic acids, naturally occurring (MORELL and LINK)

1933, 100, 385

Methylglyoxal: Alkali, weak, effect (SPOEHR and STRAIN)

1930, 89, 503

Formation, *Clostridium acetobutylicum* (PETT and WYNNE) 1932, 97, 177

—, hexosephosphate, tissues (ARIYAMA) 1928, 77, 395

Triose conversion, amines effect (STRAIN and SPOEHR) 1930, 89, 527

2-Methylheptanol-(6): Lactic acid, configurational relationship (LEVENE and HALLER)

1929, 83, 177

Methylhexylcarbinols: Configurational relationship (LEVENE and MARKER)

1932, 97, 379

1932-33, 99, 321

Homologues, configurational relationship (LEVENE and MARKER) 1932, 97, 379

1932-33, 99, 321

Methyl-*n*-hexylcarbinols: *d*- and *l*-, *d*-glucosides, emulsin hydrolysis (MITCHELL)

1929, 82, 727

Methylisobutylmethane: Series, hydrocarbons, optical rotations (LEVENE and MARKER)

1931, 92, 455

- N-Methylketopiperazine:** Hydrolysis, alkali (LEVENE, BASS, and STEIGER) 1929, 81, 697
- Methylphenylcarbinols:** Configurational relationship (LEVENE and MARKER) 1932, 97, 379
1932-33, 99, 321
- Homologues,** configurational relationship (LEVENE and MARKER) 1932, 97, 379
1932-33, 99, 321
- Hydrogenation** (LEVENE and STEVENS) 1930, 89, 471
- Methylpropylcarbinol:** 3-Hydroxybutyric acid, configurational relationship (LEVENE and HALLER) 1929, 81, 425
- Lactic acid and,** configurational relationship (LEVENE and HALLER) 1929, 81, 703
- Methylriboside:** Normal, ring structure (LEVENE and TIPSON) 1931, 93, 623
- Methylsulfonic acid:** Protein oxidation product (VARS) 1933, 100, xciii
- Methyl uric acid:** Excretion, methylated xanthines ingestion effect (HANZAL and MYERS) 1932, 97, lxix
- Methylxanthine:** Uric acid excretion, influence (MYERS and WARDELL) 1928, 77, 697
- Microorganism:** Suspension, determination (WILLIAMS, McALISTER, and ROEHM) 1929, 83, 315
- Milk:** (See note on p. 173)
- Anemia from, amino acid effect (DRABKIN and MILLER) 1931, 90, 531
1931, 92, lxi
1931, 93, 39
- , iron and, copper deficiency, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 1929, 83, 251
- Antineuritic potency (HUNT and KRAUSS) 1928, 79, 733
- Antipellagric potency (HUNT and KRAUSS) 1928, 79, 733
- Antirachitic factor, human and cow (OUTHUSE, MACY, and BREKKE) 1928, 78, 129
- value (STEENBOCK, HART, RUISSING, HOPPERT, BASHEROV, and HUMPHREY) 1930, 87, 103
- , irradiated yeast, effect (STEENBOCK, HART, HANNING, and HUMPHREY) 1930, 88, 197
- Buffer intensity (WHITTIER) 1929, 83, 79
- Calcium source (KRAMER, LATZKE, and SHAW) 1928, 79, 283
- Coagulation, rennin (STONE and ALSBERG) 1928, 78, 557
- Derivatives, irradiated, antirachitic and calcifying properties, comparison (SUPPLEE, FLANIGAN, KAHLBERG, and HESS) 1931, 91, 773
- Ergosterol, irradiated, effect (HESS, LIGHT, FREY, and GROSS) 1932, 97, 369

Milk—continued:

- Growth-promoting properties, water-soluble portion (SUPPLEE, KAHLBERG, and FLANIGAN) 1931, 93, 705
- Human (OUTHOUSE, MACY, and BREKKE) 1928, 78, 129
- , composition (BELL) 1928, 80, 239
- , —, supplementary feeding effect (KLEINER and BELL) 1928, 78, xxv
- , vitamin potency, yeast supplement influence (McCOSH, MACY, and HUNSCHER) 1931, 90, 1
- Iodized, thyroid gland size and iodine content, effect (KRAUSS and MONROE) 1930, 89, 581
- Iron-copper diet, effect (UNDERHILL, ORTEN, MUGRAGE, and LEWIS) 1932-33, 99, 469
- —, polycythemia, cobalt supplement (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932, 96, 11
- Irradiated, antirachitic activation, energy requirements (SUPPLEE, DORCAS, and HESS) 1931-32, 94, 749
- , — and calcifying properties, comparison (SUPPLEE, FLANIGAN, KAHLBERG, and HESS) 1931, 91, 773
- , — potency, radiations, intensity and character, influence (SUPPLEE, BECK, and DORCAS) 1932, 98, 769
- , rickets prevention, energy requirement (SUPPLEE, BENDER, and DORCAS) 1932, 97, 63

Milk—continued:

- Phosphorus source (KRAMER, LATZKE, and SHAW) 1928, 79, 283
- Secretion, blood tryptophane, free, relation (CARY and MEIGS) 1928, 78, 399
- , dietary factors (KOZLOWSKA and McCAY) 1931, 92, lxiii
- Vixen (YOUNG and GRANT) 1931, 93, 805
- Yeast, irradiated, effect (HESS, LIGHT, FREY, and GROSS) 1932, 97, 369
- Milo: Prolamins (JONES and CSONKA) 1930, 88, 305
- Mineral: Balances, successive, childhood (HUNSCHER, COPE, NOLL, MACY, COOLEY, PENBERTHY, and ARMSTRONG) 1932, 97, lxiv
- Metabolism, goiter involution (BAUMANN, KURLAND, and METZGER) 1931-32, 94, 383
- , inorganic constituents, diet low in (BROOKE and SMITH) 1933, 100, 105
- Mineral acid: Ingestion effect (LAMB and EVVARD) 1928, 78, xxviii
- Mineral constituents: Cranberry (MORSE) 1929, 81, 77
- Mineral oil: Butter fat vitamin A, nutritional economy effect (JACKSON) 1931, 92, vii
- Mold: Lipid (PRUESS and STRONG) 1933, 100, lxxx
- Mycelium, nitrogen (PETERSON, GORCICA, and FRED) 1933, 100, lxxviii

Mold—continued:

- Mycelium, sterol content and antirachitic power (PRUESS, PETERSON, STEENBOCK, and FRED) 1931, 90, 369
 Sterol production (PRUESS) 1930, 87, xliii

See also Aspergillus fischeri.

- Molybdc acid:** Blood proteins, precipitant (BENEDICT and NEWTON) 1929, 82, 5

- Stannous chloride reagent, phosphorus determination (KUTTNER and LICHTENSTEIN) 1930, 86, 671

- Monkfish:** Langerhans' islands (JORGES) 1930, 86, 469

- Monoacetone γ -methylglucoside:** (LEVENE and MEYER) 1928, 79, 357

- Monoamino acids:** Preparation from picrates (COX and KING) 1929, 84, 533

- Monobromobenzene:** Urine sulfur, dietary protein, *l*-cystine and *dl*-methionine ingestion, effect (WHITE and LEWIS) 1932, 98, 607

- — distribution, effect (LOUGH and LEWIS) 1931-32, 94, 739

- Monoiodoacetate:** Yeast oxidation and fermentation, influence (EHRENFEST) 1932, 97, lxxvi

- Monomethyl glucose:** Pacsu (LEVENE, MEYER, and RAYMOND) 1931, 91, 497

- Monosaccharide:** Determination, disaccharide presence (TAUBER and KLEINER) 1932-33, 99, 249

- Monoses:** Acetyl (LEVENE and WOLFROM) 1928, 78, 525
 1928, 79, 471

- (LEVENE and TIPSON) 1931, 90, 89
 1931, 92, 109

- Glucoside formation from (LEVENE, RAYMOND, and DILLON) 1932, 95, 699

- Morphine:** Determination (BALLS and WOLFF) 1928, 80, 379

- Pseudo-, optical activity (BALLS and WOLFF) 1928, 80, 403

- Withdrawal, metabolic rate, energy, and water balance changes (BARBOUR, GREGG, and HUNTER) 1930, 87, xlv

- Mucic acid:** *dl*-Galacturonic acid synthesis from (NIEMANN and LINK) 1932, 95, 203

- Mucilage:** Flaxseed, *l*-galactose preparation from (ANDERSON) 1933, 100, 249

- Quince seed (RENFREW and CRETCHER) 1932, 97, 503

- Mucin:** Pepsin inhibition by (BRADLEY) 1933, 100, xx

- Mucoprotein:** Gastric juice (WEBSTER and KOMAROV) 1932, 96, 133

- Muscle:** Activity (TALBOTT, FÖLLING, HENDERSON, DILL, EDWARDS, and BERGGREN) 1928, 78, 445

- , temperature and (DILL and EDWARDS) 1931, 92, lxxxvii

- Anserine, determination (WILSON and WOLFF) 1933, 100, cvi

Muscle—continued:

Autolyzing, phosphorus and carbohydrate metabolism, normal, hyperthyroid, and adrenalectomized animals (BUELL and STRAUSS)

1932, 97, lxxv

Calcium, parathyroid tetany (DIXON, DAVENPORT, and RANSON) 1929, 83, 737

Carbohydrate (SAHYUN) 1931-32, 94, 253

—, total, adrenalin effect (BISCHOFF and LONG) 1932, 95, 743

Carbon dioxide determination (FERGUSON and IRVING) 1929, 84, 143

Cardiac, autolyzing, phosphorus and carbohydrate metabolism, normal, thyroxinized, and adrenalectomized animals, changes (BUELL, STRAUSS, and ANDRUS) 1932, 98, 645

Contracted, lactic acid (DAVENPORT, DAVENPORT, and RANSON) 1928, 79, 499

Contraction, lactic acid rôle (MARGARIA, EDWARDS, HENDERSON, and DILL) 1933, 100, lxxv

Contracture, chemical study (DAVENPORT, DAVENPORT, and RANSON) 1928, 79, 499 (DIXON, DAVENPORT, and RANSON) 1929, 82, 61, 499 1930, 87, 295

—, tetanus toxin, effect on phosphorus, nitrogen, and fat (DAVENPORT, DAVENPORT, and RANSON) 1930, 87, 295

Muscle—continued:

Creatine (CHANUTIN and BEARD) 1928, 78, 167 (BODANSKY) 1931, 91, 147

—, creatinine coefficient, relationship (CHANUTIN and KINARD) 1932-33, 99, 125

—, fasting effect (CHANUTIN and SHEARER) 1931, 91, 475

—, muscle dystrophy, nutritional (GOETTSCH and BROWN) 1932, 97, 549

Creatinine, microdetermination (OCHOA and VALDECASAS) 1929, 81, 351

Cunner, dehydrogenase (COLLETT) 1928, 78, 685

Disease, glycine effect (BRAND and HARRIS) 1933, 100, xx —, phosphorus metabolism (BRAND and HARRIS) 1932, 97, lxxii

Dystrophy, amino acid effect (BEARD and TRIPOLI) 1933, 100, xiv

—, nutritional, muscle creatine (GOETTSCH and BROWN) 1932, 97, 549

—, pseudohypertrophic, glycine and creatine effect (CHANUTIN, BUTT, and ROYSTER) 1933, 100, xxvi

Extract, glycolysis, pancreatic inhibitor (RONZONI, GLASER, and BARR) 1928, 80, 309

Extractives, dog (WOLFF and WILSON) 1931, 92, lx

Fatigue, blood changes, effect (SCHLUTZ and MORSE) 1932, 97, lix

Fish, creatine (HUNTER) 1929, 81, 513

Muscle—continued:

- Fish, dehydrogenase, poison effect (COLLETT and CLARKE) 1929, 82, 429
- , — systems, compounds of arsenic, selenium, and tellurium, effect (COLLETT, RHEINBERGER, and LITTLE) 1933, 100, 271
- , hydrogen ion concentration (BENSON) 1928, 78, 583
- Frog, ammonia, microdetermination (EMBDEN) 1931-32, 94, 315
- , carbohydrates (SAHYUN) 1931-32, 94, 29
- , dehydrogenase (COLLETT, CLARKE, and MCGAVRAN) 1929, 82, 435
- , —, poison effect (COLLETT and CLARKE) 1929, 82, 429
- , — systems, compounds of arsenic, selenium, and tellurium, effect (COLLETT, RHEINBERGER, and LITTLE) 1933, 100, 271
- , hexosemonophosphate disappearance (RONZONI and KERLY) 1933, 100, lxxxiv
- , metabolism, anaerobic, hydrogen ion concentration effect (KERLY and RONZONI) 1932, 97, lxxiv
- , phosphorus distribution, delayed relaxation (DIXON, DAVENPORT, and RANSON) 1929, 82, 61
- Gastrocnemius, autolyzing, phosphorus and carbohydrate metabolism, normal, thyroxinized, and adrenalectomized animals, changes (BUELL, STRAUSS, and ANDRUS) 1932, 98, 645

Muscle—continued:

- Globulin, physical chemistry (EDSALL) 1930, 89, 289 (VON MURALT and EDSALL) 1930, 89, 315, 351
- Glucose-lactic acid cycle (HIMWICH, KOSKOFF, and NAHUM) 1929-30, 85, 571
- Glycogen, from *d*-lactic acid, exercise effect (LONG and HORSFALL) 1932, 95, 715
- , tetanus toxin, shortening, effect (DAVENPORT, DAVENPORT, and RANSON) 1929, 82, 499
- Heart, sugar, fermentable (CORI and CLOSS) 1933, 100, xxxii
- Hexosemonophosphate determination (CORI and CORI) 1931-32, 94, 561
- Hexosephosphate, epinephrine and insulin effect (CORI and CORI) 1931, 92, lii 1931-32, 94, 581
- Invertebrates, arginine (ARNOLD and LUCK) 1932-33, 99, 677
- Mammalian, carbohydrate, anaerobiosis, effect (CORI) 1932, 96, 259
- , —, total, glycogen and (CORI and CORI) 1933, 100, 323
- , glycogen, contraction and recovery (CORI and CORI) 1932-33, 99, 493
- , hexosephosphate, contraction and recovery (CORI and CORI) 1932-33, 99, 493
- , lactic acid (DAVENPORT and DAVENPORT) 1928, 76, 651

Muscle—continued:

- Mammalian, lactic acid, contraction and recovery (CORI and CORI) 1932-33, 99, 493
- , living, carbon dioxide dissociation curve (IRVING, FOSTER, and FERGUSON) 1932, 95, 95
- , phosphate, inorganic (SACKS and DAVENPORT) 1928, 79, 493
- Nitrogen, fasting effect (CHANUTIN and SHEARER) 1931, 91, 475
- Nucleotide determination (KERR and BLISH) 1932, 98, 193
- Phosphorus (DAVENPORT and SACKS) 1929, 81, 469
- , acid-soluble, parathyroid tetany (DAVENPORT, DIXON, and RANSON) 1929, 83, 741
- compounds, insulin effect (KERR and BLISH) 1932, 97, 11
- , labile (IRVING and WELLS) 1928, 77, 97
- Pigment, yellow (DRABKIN) 1928, 78, xii
- Potassium, bound (CALLISON) 1931, 90, 665
- , Donnan equilibrium effect (MITCHELL) 1928, 78, x
- Skeletal, blood sugar, effect (SAHYUN and ALSBERG) 1929, 83, 129
- , mammalian, anserine (WOLFF and WILSON) 1932, 95, 495
- , —, recovery, anesthesia effect (LONG) 1928, 77, 563

Muscle—continued:

- Skeletal, phospholipids, fat absorption, rôle (SINCLAIR) 1929, 82, 117
- , sugar, fermentable (CORI and CLOSS) 1933, 100, xxxii
- Smooth, lactic acid metabolism (RONZONI) 1928, 78, lv
- , phospholipids, fat absorption, rôle (SINCLAIR) 1929, 82, 117
- Striated, calcium, rickets (HAURY) 1930, 89, 467
- , lactic acid metabolism (RONZONI) 1928, 78, lv
- , phosphorus distribution, age, diet, and irradiated ergosterol influence (COLE) 1931, 92, xv
- (COLE and KOCH) 1931-32, 94, 263
- Sugar, adrenalin effect (BISCHOFF and LONG) 1930, 87, 47
- , free (POWER and CLAWSON) 1928, 78, lvi
- , —, adrenalin effect (BISCHOFF and LONG) 1932, 95, 743
- , true, diabetics and non-diabetics (TRIMBLE and CAREY) 1931, 90, 655
- Tissue, glycolysis, pancreatic inhibitor (RONZONI, GLASER, and BARR) 1928, 80, 309
- Vertebrate, arginine (ARNOLD and LUCK) 1932-33, 99, 677
- See also* Exercise, Myasthenia gravis, Myositis fibrosa, Myositis ossificans, Running, Work.

Myasthenia gravis: Tyrosine compound, reducing, urine (BERGLUND, MEDES, and LOHMANN) 1928, 78, v

Myosin: Physicochemical properties (EDSALL)

1930, 89, 289

(VON MURALT and EDSALL)

1930, 89, 315, 351

Myositis fibrosa: Creatine metabolism (BODANSKY, SCHWAB, and BRINDLEY)

1929-30, 85, 307

Generalized, myositis ossificans, comparison (BODANSKY and SCHWAB) 1930, 87, x

Myositis ossificans: Creatine metabolism (BODANSKY and SCHWAB) 1930, 87, x

Myositis fibrosa, generalized, comparison (BODANSKY and SCHWAB) 1930, 87, x

Myrosin: (SANDBERG and HOLLY) 1932, 96, 443

Myrtomel: Diabetes, effect (MORRELL, VARLEY, HART, and SCHWOCH)

1928, 78, lxviii

N

α -Naphthol: Sugar reactions, biological fluids (FOULGER) 1931, 92, 345

Navy bean: See Bean.

Necturus: Aqueous humor reducing substances and phosphates (WALKER, ELLINWOOD, and REISINGER)

1932, 97, lxxii

Blood plasma reducing substances and phosphates (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii

Necturus—continued:

Cerebrospinal fluid reducing substances and phosphates (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii

Urine, glomerulus, and blood plasma, total molecular concentration, comparison (WALKER) 1930, 87, 499

—, —, electrical conductivity (BAYLISS and WALKER)

1930, 87, 523

—, —, reducing substances and phosphates (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii

Neoplasm: Growth, anterior pituitary growth-promoting principle, effect (BISCHOFF, MAXWELL, and ULLMANN) 1932, 97, cii

Hydrogen ion concentration (MILLET) 1928, 78, 281

Nephrectomy: Creatine metabolism (CHANUTIN and SILVETTE) 1929-30, 85, 179

—, rat, effect (CHANUTIN) 1930, 89, 765

Nitrogen, rat, effect (CHANUTIN) 1930, 89, 765

Partial, kidney insufficiency, liver diet effect (CHANUTIN) 1932, 97, ciii

Unilateral, protein-high diets (BLATHERWICK, MEDLAR, CONNOLLY, and BRADSHAW) 1931, 92, lxxxiv

Nephritis: Phosphate injection effect (BOLLIGER) 1928, 78, lxxiv

Nephritis—continued:

Protein-high diets, unilateral nephrectomy (BLATHERWICK, MEDLAR, CONNOLLY, and BRADSHAW)

1931, 92, lxxxiv

Urine glucose (HAWKINS, MAC-KAY, and VAN SLYKE)

1928, 78, xxiii

— proteins, blood, edema fluids, comparison (CAVETT)

1930, 87, xvi

— reducing substances, identification (HILLER)

1931, 91, 735

Nerve: Activity, energy source (RONZONI) 1931, 92, iii

Neuritis: Antineuritic concentrates, potency testing (FREUDENBERG and CERECEDO)

1931-32, 94, 207

Neurokeratin: Amino acids, basic (BLOCK)

1931-32, 94, 647

Keratin, true, relation (BLOCK)

1931-32, 94, 647

Neuromuscular disease: Glycine effect (BRAND and HARRIS)

1933, 100, xx

Nicotine: Dissociation constants, apparent (VICKERY and PUCHER)

Tobacco, free, determination (VICKERY and PUCHER)

1929, 84, 233

Nitrate nitrogen: Plant extracts high in, nitrogen distribution (CHIBNALL and MILLER)

1931, 90, 189

— tissues, determination (VICKERY, PUCHER, and WAKEMAN)

1932, 97, lxxxix

Nitrates: Biological fluids, determination, colorimetric (WHELAN) 1930, 86, 189

Nitric acid: Plant tissue, determination (PUCHER, VICKERY, and WAKEMAN)

1932, 97, 605

Nitrites: Biological fluids, determination, colorimetric (WHELAN) 1930, 86, 189

Nitrogen: Amide. *See* Amide nitrogen.

Amino. *See* Amino nitrogen.

— acid. *See* Amino acid.

Bacteria (HOPKINS, PETERSON, and FRED)

1929-30, 85, 21

Balance, exercise effect (TURNER and HARTMAN)

1928, 78, xxvii

—, pituitary, anterior, extracts, effect (GAEBLER)

1932, 97, li

Blood (NELSON and COLE)

1931, 92, xxviii

— urea, Nesslerization, direct (LOONEY) 1930, 87, xxix

Body, creatine ingestion effect (CHANUTIN) 1930, 87, viii

—, diet effect (CHANUTIN)

1930, 89, 765

—, fasting effect (CHANUTIN)

1930, 87, viii

(CHANUTIN and SHEARER)

1931, 91, 475

—, nephrectomy effect (CHANUTIN) 1930, 89, 765

Compounds, embryo growth (WILKERSON and GORTNER)

1932, 97, lxi

Conservation, iron salts, anemia, influence (DAFT)

1933, 100, xxxiv

Nitrogen—continued:

- Determination, trichloroacetic acid filtrates, source of error (KAY) 1931, 93, 727
- Distribution, Van Slyke method, modification (CAVETT) 1932, 95, 335
- Egg, developing, distribution (CALVERY) 1929, 83, 231
- Elimination, amino acid injection effect (WILHELMJ and BOLLMAN) 1928, 77, 127
- Equilibrium, protein-low diet (McCLELLAN and HANNON) 1932, 95, 327
- Excretion, camel (SMITH and SILVETTE) 1928, 78, 409
- Free diet, thyroxine, respiration effect (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY) 1928, 76, 407
- Gas mixtures, determination by absorption (VAN SLYKE and SENDROY) 1932, 95, 509
- Mercury filtrates, alkaline (EVERETT and SHEPPARD) 1932, 97, lxxxix
- Metabolism, ergosterol, irradiated, effect (KERN, MONTGOMERY, and STILL) 1931, 93, 365
- , meat diet, prolonged (McCLELLAN, RUPP, and TOSCANI) 1930, 87, 669
- , muscular exercise and (CHAMBERS and MILHORAT) 1928, 77, 603
- , thyroxine effect, prolonged nitrogen-free diet (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY) 1928, 76, 407

Nitrogen—continued:

- Metabolism, urea ingestion effect (MOORE, LAVIETES, WAKEMAN, and PETERS) 1931, 91, 373
- Minimum (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY) 1928, 76, 391
- Mold mycelium (PETERSON, GORCICA, and FRED) 1933, 100, lxxviii
- Muscle, fasting effect (CHANUTIN and SHEARER) 1931, 91, 475
- , tetanus toxin, effect (DAVENPORT, DAVENPORT, and RANSON) 1930, 87, 295
- Nitrate, plant extracts high in, nitrogen distribution (CHIBNALL and MILLER) 1931, 90, 189
- , — tissues, determination (VICKERY, PUCHER, and WAKEMAN) 1932, 97, lxxxix
- Non-protein, blood, amino acid administration effect (JOHNSTON and LEWIS) 1928, 78, 67
- , —, distribution, insulin effect (KERR and KRIKORIAN) 1929, 81, 421
- , —, unlaked, microdetermination (FOLIN and SVEDBERG) 1930, 88, 85
- , components, blood, cyclic variations, women (ERIKSON and OKEY) 1931, 91, 715
- , total, blood, glucose ingestion effect (MOSENTHAL and BRUGER) 1932, 97, lxxxiii

Nitrogen—continued:

- Partition, urine, protein-free diet effect (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY) 1928, 76, 391
- , —, urea effect (KOCHER and TORBERT) 1932, 95, 427
- Plant extracts, high nitrate nitrogen, distribution (CHIBNALL and MILLER) 1931, 90, 189
- Retention, pregnancy (COONS and BLUNT) 1930, 86, 1
- , yeast influence, normal and depancreatized dog (NASSET and PIERCE) 1930, 87, xli
- Total, blood plasma, age effect (SWANSON and SMITH) 1932, 97, 745
- Tuberculins (SEIBERT and MUNDAY) 1931, 92, lxxvii
- Urea, blood, determination, direct Nesslerization (LOONEY) 1930, 88, 189
- Utilization, lactation (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- , —, cod liver oil and yeast supplements (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- , reproductive cycle (HUNSCHER, DONELSON, NIMS, KENYON, and MACY) 1932-33, 99, 507
- Nitrogenous constituents:** Urine, goosefish (GROLLMAN) 1929, 81, 267
- Nitrogenous substances:** Blood, zinc filtrates (SOMOGYI) 1930, 87, 339

- Nitrous acid:** Casein, action (WILEY and LEWIS) 1930, 86, 511
- Vitamin B complex, effect (SHERMAN and WHITSITT) 1931, 90, 153
- Nomogram:** Basal metabolism, height-weight coordinates (BRUEN) 1929-30, 85, 607
- Norit:** Adsorption, quinine, oxalate, and glucose (GUERRANT and SALMON) 1928, 80, 67
- Norleucine:** Identity and isolation (CZARNETZKY and SCHMIDT) 1932, 97, 333
- Nucleic acid:** Dye and, reaction, stoichiometrical relations (STEARN) 1931, 91, 325
- Hexose, embryo, chicken, isolation (CALVERY) 1928, 77, 497
- Thymo-, carbohydrate (LEVENE, MIKESKA, and MORI) 1929-30, 85, 785
- , chemical constitution (LEVENE and LONDON) 1929, 83, 793
- , ribopolynucleotides, separation (LEVENE and JORPES) 1930, 86, 389
- Thymus, guaninedesoxypentose from (LEVENE and LONDON) 1929, 81, 711
- Timothy bacillus (COGHILL) 1931, 90, 57
- Nucleoside(s):** Cytosine, metabolism (EMERSON and CERECEDO) 1930, 87, 453
- Synthetic (LEVENE and CORTESE) 1931, 92, 53
- Uracil, metabolism (EMERSON and CERECEDO) 1930, 87, 453

Nucleotidase: Intestine (LE-
VENE and DILLON)1930, **88**, 7531932, **96**, 461**Poly-, intestine** (LEVENE and
DILLON)1932, **96**, 461**Nucleotide(s):** Adenine, blood,
microdetermination (BUELL
and PERKINS)1928, **76**, 95**Blood, determination** (KERR
and BLISH)1932, **98**, 193**Muscle, determination** (KERR
and BLISH)1932, **98**, 193**Pentose, embryo, chicken, iso-
lation** (CALVERY)1928, **77**, 489**Ribo-, hydrolysis rate** (LE-
VENE and JORPES)1929, **81**, 575**Ribopoly-, purine bases, sepa-
ration** (LEVENE and JORPES)1930, **86**, 389**—, thymonucleic acid, separa-
tion** (LEVENE and JORPES)1930, **86**, 389

O

Oatmeal: Hemoglobin regenera-
tion, influence (ROSE and
VAHLTEICH)1932, **96**, 593**Oats:** Amino acid deficiency,
growth effect (MITCHELL and
SMUTS)1932, **95**, 263**Rickets, irradiation and
mineral supplements, effect**
(STEENBOCK, BLACK, and
THOMAS)1929-30, **85**, 585**Obesity:** Ketosis threshold (Mc-
CLELLAN, SPENCER, FALK,
and DU BOIS)1928, **80**, 639**Obituary:** Lusk, Graham1932, **98**, preceding p. 1**Obituary—continued:**

Osborne, Thomas Burr

1929, **81**, preceding p. 495

Van Slyke, Lucius Lincoln

1931-32, **94**, preceding p. 329**Oil(s):** Acetyl number, deter-
mination (WEST, CURTIS, and
HOAGLAND)1933, **100**, cii**Vitamin A chromogenic sub-
stance, stability** (NORRIS and
CHURCH)1930, **89**, 589**— —, hydroquinone effect**
(HUSTON, LIGHTBODY, and
BALL)1928, **79**, 507**— — stability** (NORRIS and
CHURCH)1930, **89**, 589*See also* Cod liver oil, Coffee-
bean oil, Cottonseed oil, Fish
liver oil, Fish oil, Linseed oil,
Menhaden oil, Mineral oil,
Peanut oil, Vegetable oil.**Oleanolic acid:** Dehydrogena-
tion, partial (JACOBS and
FLECK)1932, **96**, 341**Oleic acid:** Glycerides, vitamin
B-sparing action (EVANS and
LEPKOVSKY)1932-33, **99**, 237**Oligosaccharides:** Reduction by
(EVERETT and EDWARDS)1933, **100**, xlii**Onion:** Disease resistance, cate-
chol, relation (LINK and
WALKER)1933, **100**, 379**— —, protocatechuic acid, re-
lation** (LINK, ANGELL, and
WALKER)1929, **81**, 369**(LINK, DICKSON, and
WALKER)**1929, **84**, 719**Optical activity:** Chemical con-
stitution, relationship (LE-
VENE and HALLER)1928, **79**, 475

Optical activity—*continued*:

Kynurenic acid production,
influence (BERG)

1932, 97, lxviii

Unsaturation effect (LEVENE
and HALLER)

1929, 83, 177, 579

See also Walden inversion.

Optical rotation: Chemical con-
stitution and (LEVENE and
MARKER)

1931, 93, 749

1932, 97, 563
(LEVENE, MARKER, and
ROTHEN)

1933, 100, 589

Ionization effect (LEVENE,
BASS, ROTHEN, and STEIGER)

1929, 81, 687

Organic acids: Determination
(GREENWALD)

1929-30, 85, 447

Excretion, pneumonia (GREEN-
WALD)

1929-30, 85, 447

Hydroxy, titration, ferric and
cupric salts (SMYTHE)

1931, 92, 233

Non-volatile, tobacco leaves,
green (VICKERY and PUCHER)

1931, 90, 637

Production, intestine, excised
(VON OETTINGEN and SOLL-
MANN)

1929-30, 85, 245

Urine, titration, tropeolin OO
fading (McCLUSKEY)

1931, 90, 197

Organic compounds: Chemical
constitution, and liver ester-
ase inhibiting effect, relation
(GLICK and KING)

1932, 95, 477

—, esterase and lipase, rela-
tion (GLICK)

1932, 97, lxvii

Salts, alkaline reserve, inges-
tion effect (CAPE)

1933, 100, xxv

Ornithine: Crystalline, prepara-
tion (VICKERY and COOK)

1931-32, 94, 393

Dissociation constants
(SCHMIDT, KIRK, and
SCHMIDT)

1929, 81, 249

Monosulfates, preparation
(VICKERY and COOK)

1931-32, 94, 393

Picrates, preparation (VICK-
ERY and COOK)

1931-32, 94, 393

Orthophosphoric acid: Phos-
phorus supplement, ration,
effect (TURNER, KANE, and
HALE)

1931, 92, xiv

Osborne, Thomas Burr: Obituary
1929, 81, preceding p. 495

Osmotic pressure: Blood serum
proteins and lipids, relation
to (FISHBERG)

1929, 81, 205

Colloid, determination (HILL)

1932-33, 99, 323

Ostitis fibrosa: Hyperparathy-
roidism, effect (BODANSKY,
BLAIR, and JAFFE)

1930, 88, 629

Ouabain: (JACOBS and BIGELOW)

1932, 96, 647

Ovariectomy: Tissue, adipose,
effect (REED, ANDERSON, and
MENDEL)

1932, 96, 313

Ovary: Cholesterol metabolism,
relation (RANDLES and
KNUDSON)

1929, 82, 57

Hormone, crystalline, prepara-
tion, urine, pregnancy
(DOISY, VELER, and THAYER)

1930, 86, 499

—, extraction (THAYER, JOR-
DAN, and DOISY)

1928, 79, 53

Ovary—continued:

Hormone, follicular, preparation, crystalline (VELER, THAYER, and DOISY)

1930, 87, 357

Pregnancy, effect (CARTLAND, HEYL, and NEUPERT)

1929-30, 85, 539

Theelin, preparation (VELER, THAYER, and DOISY)

1930, 87, 357

Ovomucoid: Carbohydrate group (LEVENE and MORI)

1929, 84, 49

Oxalate: Adsorption, fullers' earth and norit (GUERRANT and SALMON)

1928, 80, 67

Oxalic acid: Determination, gasometric (VAN SLYKE and SENDROY)

1929, 84, 217

Oxidase: Activity determination (STEARNS and DAY)

1929-30, 85, 299

α -Hydroxy-, gonococci, lactic acid oxidation, mechanism (BARRON and HASTINGS)

1932, 97, lxxiii

—, lactic acid oxidation, mechanism (BARRON and HASTINGS)

1933, 100, 155

Potato, activity determination (STEARNS and DAY)

1929-30, 85, 299

Tyramine oxidation (BERNHEIM)

1931, 93, 299

Oxidation(s): Azotobacter, by (LINEWEAVER)

1932-33, 99, 575

β , quantitative (QUICK)

1928, 77, 581

1928, 80, 515

(SWEET and QUICK)

1928, 80, 527

Oxidation(s)—continued:

β , quantitative (QUICK)

1928, 80, 535

1932, 98, 537

Biological (BARRON and MILLER)

1932, 97, 691

(BARRON and HASTINGS)

1933, 100, 155

—, pyrrrole as catalyst (BERNHEIM and BERNHEIM)

1931, 92, 461

Iron catalysis in, mechanism (SMYTHE)

1931, 90, 251

Reversible, two-step, theory (MICHAELIS)

1932, 96, 703

(ELEMA)

1933, 100, 149

Unsaturated compounds, ferricyanide as catalyst (WRIGHT, CONANT, and KAMERLING)

1931-32, 94, 411

Oxidation-reduction: Indicator, rosinduline as (MICHAELIS)

1931, 91, 369

Indicators (MICHAELIS and EAGLE)

1930, 87, 713

System, homogentisic acid as (FISHBERG and DOLIN)

1932, 97, lxxxviii

Systems, autoxidation rate (BARRON)

1931, 92, xlvi

1932, 97, 287

—, —, free energy relation (BARRON)

1931, 92, xlvi

1932, 97, 287

—, biological significance (MICHAELIS and FLEXNER)

1928, 79, 689

(MICHAELIS and BARRON)

1929, 81, 29

(BARRON, FLEXNER, and MICHAELIS)

1929, 81, 743

(MICHAELIS and BARRON)

1929, 83, 191

Oxidation-reduction—continued:

- Systems, biological significance
(MICHAELIS and YAMAGUCHI) 1929, 83, 367
(MICHAELIS) 1929, 84, 777

Oxycalorimeter: Benedict, elementary analysis, comparison (ADAMS, BOLLMAN, and BOOTHBY) 1932, 97, xci**Oxygen:** Blood, determination, gasometric (SENDROY and LIU) 1930, 89, 133

- Capacity, blood, arterial and venous (HURXTHAL, BOCK, TALBOTT, and DILL) 1929, 81, 681

- , — pigment, hepatectomy effect (STIMSON and HUBBETZ) 1928, 78, 413

- Combining properties, blood (STADIE and HAWES) 1928, 77, 241, 265
(STADIE) 1928, 77, 303

- ratio, hemocyanin (REDFIELD, COOLIDGE, and MONTGOMERY) 1928, 76, 197

- Consumption, cellular, cyanide effect on dyes as catalyst (BARRON and HAMBURGER) 1932, 96, 299

- , fasting (DAVIS and VAN DYKE) 1933, 100, 455

- , leucocytes, methylene blue effect (BARRON) 1929, 84, 83

- , measurement, chamber (KOEHLER) 1932, 95, 67

- , —, small animals (DAVIS and VAN DYKE) 1932, 95, 73

- , sea urchin and starfish eggs, methylene blue effect

Oxygen—continued:

- Debt, mechanism (MARGARIA, EDWARDS, HENDERSON, and DILL) 1933, 100, lxx

- Determination, respiration apparatus, indirect calorimetry (McCLENDON, ANDERSON, STEGGERDA, CONKLIN, and WHITAKER) 1928, 77, 413

- Equilibrium, hemoglobin and, hydrogen ion activity, relation (FERRY and GREEN) 1929, 81, 175

- Gas mixtures, determination by absorption (VAN SLYKE and SENDROY) 1932, 95, 509

- , —, — combustion (VAN SLYKE and HANKE) 1932, 95, 569

- Hemoglobin equilibrium, electrolyte effect (GREEN and TALBOTT) 1933, 100, p. 1

- Tension, reduced, acid-base equilibrium (BARRON, HARROP, PERLZWEIG, and PIERCE) 1930, 87, xxv

- Transport (DILL, TALBOTT, EDWARDS, and FÖLLING) 1930, 87, xxvi

- Utilization, legs, normal men (FLORKIN, EDWARDS, DILL, and HENDERSON) 1930, 87, xxv

- d*-2-Oxyglucal: Metabolism rate (FREUDENBERG and FELTON) 1932-33, 99, 657

- Oxyproline: Oxidation by liver (BERNHEIM and BERNHEIM) 1932, 96, 325

- Pancreas: Amylase, purification (SHERMAN, CALDWELL, and

Pancreas—continued:

Diabetes, blood acetone, various organs, effect (HIMWICH, GOLDFARB, and WELLER)

1931, 93, 337

Enzyme, anemia, pernicious (HELMER, FOUTS, and ZERFAS)

1933, 100, liii

Extract, glycolysis inhibition, malignant tumors (BARR, RONZONI, and GLASER)

1928, 80, 331

—, —, muscle tissue and muscle extract (RONZONI, GLASER, and BARR)

1928, 80, 309

Juice, acid and base injection, influence (BALL)

1930, 86, 433

—, enzyme, glycolytic (BOLDYREFF)

1928, 78, lix

—, inorganic constituents, pancreatic duct drainage (JOHNSTON and BALL)

1930, 86, 643

—, — salts injection, influence (BALL)

1930, 86, 449

Lipase, activation, surface effects, relationship (GLICK and KING)

1932, 97, 675

See also *Callicrein*, *Langerhans' islands*.

Pancreatectomy: Blood diastase (REID, QUIGLEY, and MYERS)

1932-33, 99, 615

— phosphorus distribution, effect (KERR)

1928, 78, 35

— potassium distribution, effect (KERR)

1928, 78, 35

Glucose, epinephrine-liberated, origin (BOLLMAN, MANN, and WILHELMJ)

1931, 93, 83

Pancreatectomy—continued:

Nitrogen retention, yeast influence (NASSET and PIERCE)

1930, 87, xli

Phenylbutyric acid fate (SWEET and QUICK)

1928, 80, 527

Respiratory metabolism, exercise (CHAMBERS, KENNARD, POLLACK, and DANN)

1932, 97, 525

Sugar formation from fatty acids, epinephrine effect (CHAIKOFF and WEBER)

1928, 76, 813

Tissue diastase (REID, QUIGLEY, and MYERS)

1932-33, 99, 615

Papain: Urease, crystalline, digestion and inactivation by (SUMNER, KIRK, and HOWELL)

1932, 98, 543

Parabanic acid: Fate (CERECEDO)

1931, 93, 283

Paraldehyde: Blood cholesterol, effect (GRAY)

1930, 87, 591

Parathyroid: Aqueous humor calcium, activity effect (MERRITT and BAUER)

1931, 90, 233

Blood plasma calcium-raising principle, preparation and properties (TWEEDY)

1930, 88, 649

— — — —, purification (TWEEDY and SMULLEN)

1931, 92, lv

— — — —, reversible inactivation (TWEEDY and TORIGOE)

1932, 97, xlviii

— serum calcium, activity effect (MERRITT and BAUER)

1931, 90, 233

Parathyroid—continued:

- Cerebrospinal fluid calcium, activity effect (MERRITT and BAUER) 1931, 90, 233
- Ergosterol, irradiated, toxicity, relation (JONES) 1933, 100, 343
- Function (KOZELKA) 1933, 100, lx
- Growth effect (KOZELKA, HART, and BOHSTEDT) 1933, 100, 715
- Hormone action, mechanism (THOMSON and PUGSLEY) 1932, 97, xcvi
- , blood serum calcium, effect (MORGULIS and PERLEY) 1930, 88, 169
- , calcium excretion, normal and hypophysectomized rat, injection effect (PUGSLEY) 1933, 100, lxxxi
- , cerebrospinal fluid calcium, effect (MORGULIS and PERLEY) 1930, 88, 169
- , chemistry (TWEEDY and TORIGOE) 1932–33, 99, 155
- , rôle (PUGSLEY and SELYE) 1933, 100, lxxxi
- Reproduction and lactation, relation (KOZELKA, HART, and BOHSTEDT) 1933, 100, 715
- (KOZELKA) 1933, 100, lx
- Tetany, muscle calcium (DIXON, DAVENPORT, and RANSON) 1929, 83, 737
- , — phosphorus, acid-soluble compounds (DAVENPORT, DIXON, and RANSON) 1929, 83, 741

- Parathyroid extract:** Blood magnesium, effect (GREENBERG and MACKAY) 1932, 98, 765
- Bone, effect (MORGAN, KIMMEL, THOMAS, and SAMISCH) 1933, 100, lxxi
- Dietary calcium and phosphorus and vitamin D (MORGAN and GARRISON) 1931, 92, xciv
- Vitamin D and diet reaction (MORGAN and GARRISON) 1929–30, 85, 687
- Parathyroidectomy:** Blood calcium (TWEEDY and CHANDLER) 1928, 78, lxxiii
- inorganic constituents (WEAVER and REED) 1929–30, 85, 281
- plasma calcium (REED) 1928, 77, 547
- serum calcium, diet and viosterol effect (SHELLING) 1932, 96, 215
- — —, dietary calcium and phosphorus, effect (SHELLING) 1932, 96, 195
- Ergosterol, irradiated, effect (ASHER and JONES) 1933, 100, 333
- Food intake, dietary calcium and phosphorus, effect (SHELLING) 1932, 96, 195
- Tetany, diet and viosterol effect (SHELLING) 1932, 96, 215
- , dietary calcium and phosphorus, effect (SHELLING) 1932, 96, 195
- prevention, ammonium chloride effect (GREENWALD) 1929, 82, 717

Parathyroidectomy—continued:

Tetany prevention, cod liver oil effect (GREENWALD and GROSS) 1929, 82, 505

—, lactose effect (GREENWALD and GROSS) 1929, 82, 531

Parotid: Saliva, inorganic constituents, blood serum composition, relation (DE BEER and WILSON) 1932, 95, 671

Parturition: Blood serum calcium, protein, and phosphorus, inorganic, relation (OBERST and PLASS) 1931, 92, xiii

Pea: Protein, cystine deficiency (BEADLES, BRAMAN, and MITCHELL) 1930, 88, 615

Peanut oil: Tetracosanic acid (TAYLOR) 1931, 91, 541

Pectic acid: Lemon, *d*-galacturonic acid preparation (LINK and DICKSON) 1930, 86, 491

Pellagra: Antipellagric potency, milk (HUNT and KRAUSS) 1928, 79, 733

Penicillium luteum-purpureum: Group, gluconic acid production (HERRICK and MAY) 1928, 77, 185

Pentenic acid: Phenyl- α , β - and phenyl- β , γ -, metabolism (QUICK) 1928, 80, 515

Pentose: Metabolism (CORLEY) 1928, 76, 23
1929, 82, 269

(MILLER and LEWIS) 1932, 98, 133, 141

Nucleotide, embryo, chicken, isolation (CALVERT) 1928, 77, 489

Pentose—continued:

Tissue, *d*-xylose ingestion effect (MILLER and LEWIS) 1932, 98, 141

Urine, metabolism significance (GREENWALD) 1931, 91, 731

Pentoside: Guaninedesoxy-, thymus nucleic acid (LEVENE and LONDON) 1929, 81, 711

Pentosuria: Sugar, nature (GREENWALD) 1930, 88, 1
1930, 89, 501

Pepsin: Activity (TORBET and BRADLEY) 1931, 92, lxxvii
—, determination (GILMAN and COWGILL) 1930, 88, 743

Casein digestion (JONES and GERSDORFF) 1933, 100, lviii
Chemistry (TAUBER) 1932–33, 99, 257

Digestion, arginine in (TORBET and BRADLEY) 1932, 97, cx

Inhibition, mucin (BRADLEY) 1933, 100, xx

Isoelectric precipitation (FENGER, ANDREW, and RALSTON) 1928, 80, 187

Protein hydrolysis, neutral salts effect (MCMEEKIN) 1928, 78, xliii

Proteolysis, arginine and tyrosine complexes, liberation (TORBET and BRADLEY) 1931, 92, lxxvii

Rennin separation from (TAUBER and KLEINER) 1932, 96, 745

Urease, crystalline, digestion and inactivation by (SUMNER, KIRK, and HOWELL) 1932, 98, 543

- Peptides:** Alkali action (LEVENE and STEIGER) 1928, 76, 299
 (LEVENE, STEIGER, and MARKER) 1931, 93, 605
 Amino acids, trivalent (GREENSTEIN) 1931, 93, 479
 1932, 95, 465
 Aromatic aldehyde derivatives (DAKIN) 1929, 84, 675
 Chemical constitution, hydrolysis rate, relation (LEVENE, BASS, and STEIGER) 1929, 81, 221
 (LEVENE, STEIGER, and BASS) 1929, 82, 155
 (LEVENE, BASS, and STEIGER) 1929, 82, 167
 (LEVENE, STEIGER, and ROTHEN) 1932, 97, 717
 Hydrochloric acid action (LEVENE and STEIGER) 1930, 86, 703
 Optical rotation, ionization effect (LEVENE, BASS, ROTHEN, and STEIGER) 1929, 81, 687
Perbenzoic acid: Glucals, substituted, action (LEVENE and RAYMOND) 1930, 88, 513
 (LEVENE and TIPSON) 1931, 93, 631
Periplocymarin: (JACOBS and HOFFMANN) 1928, 79, 519
Periplogenin: (JACOBS and HOFFMANN) 1928, 79, 519
 Digitoxigenin, correlation (JACOBS and ELDERFIELD) 1931, 92, 313
 Gitoxigenin, correlation (JACOBS and ELDERFIELD) 1931, 92, 313
 Strophanthidia, correlation (JACOBS and ELDERFIELD) 1931, 91, 625
- Permeability:** Cell, ethylene effect (NORD and FRANK) 1928, 79, 27
 Fatty acids, saturated (BODANSKY) 1928, 79, 241
Permutit: Tobacco, ammonia and amide nitrogen determination (VICKERY and PUCHER) 1929, 83, 1
Peroxidase: Activity, factors influencing (GETCHELL and WALTON) 1931, 91, 419
Persea americana: See Avocado.
Perspiration: Acid-base balance (FISHBERG and BIERMAN) 1932, 97, 433
 Urine and (MOSEER) 1932-33, 99, 781
Phaseolin: Cystine (SULLIVAN) 1928, 78, xv
Phenol red: Elimination, glomerulus, frog (RICHARDS and WALKER) 1930, 87, 479
Phenols: Biochemical relations (HUSTON and LIGHTBODY) 1928, 76, 547
 (HUSTON, LIGHTBODY, and BALL) 1928, 79, 507
 Blood, tyrosine ingestion effect (LOONEY) 1933, 100, lxiv
Phenylacetic acid: Conjugation (QUICK) 1928, 77, 581
Phenylaceturic acid: Synthesis site, dog (QUICK) 1932, 96, 73
Phenylalanine: Dihydroxy-, dissociation constants, apparent (MIYAMOTO and SCHMIDT) 1931, 90, 165
 Dissociation constants, apparent (MIYAMOTO and SCHMIDT) 1931, 90, 165

Phenylalanine—continued:

Metabolism (SHAMBAUGH,
LEWIS, and TOURTELLOTT) 1931, 92, 499

—, intermediary (CHANDLER
and LEWIS) 1930, 87, lvi

Oxidation, rabbit (CHANDLER
and LEWIS) 1932, 96, 619

Phenylbutyric acid: Fate, pan-
createctomy (SWEET and
QUICK) 1928, 80, 527

Phenyl compounds: Rotations
(LEVENE and MARKER) 1933, 100, 685

5,5-Phenylethylhydantoins: Op-
tically active (SOBOTKA,
PECK, and KAHN) 1932, 97, lxxix

Phenylhydantoin: Cysteic acid,
preparation and properties
(ANDREWS and ANDREWS) 1933, 100, vi

Cystine, decomposition (BERG-
MANN, ANDREWS, and AN-
DREWS) 1931, 92, xxxvii

Phenylhydrazine hydrochloride:
Hemolysis, uric acid, endog-
enous, and reticulocytes
and erythrocytes, effect
(KRAFKA) 1930, 86, 223

Phenyl- β -hydroxypropionic acid:
Metabolism (QUICK) 1928, 80, 515

Phenylosazones: Urine, normal
(EVERETT and SHEPPARD) 1932, 96, 431

Phenyl- α , β -pentenic acid: Me-
tabolism (QUICK) 1928, 80, 515

Phenyl- β , γ -pentenic acid: Me-
tabolism (QUICK) 1928, 80, 515

Phenylpyruvic acid: Oxidation,
rabbit (CHANDLER and
LEWIS) 1932, 96, 619

Phenylvaleric acid: Metabolism
(QUICK) 1928, 80, 515

Phlorhizin: β -Alanine fate, effect
(CORLEY) 1929, 81, 545

ϵ -Aminocaproic acid fate, effect
(CORLEY) 1929, 81, 545

Butyric acid, ω -hydroxy deriv-
atives of, fate, effect (COR-
LEY and MARVEL) 1929, 82, 77

Caproic acid, ω -hydroxy deriv-
atives of, fate, effect (COR-
LEY and MARVEL) 1929, 82, 77

Diabetes, blood acetone, vari-
ous organs, effect (HIMWICH,
GOLDFARB, and WELLER) 1931, 93, 337

—, glucose tolerance and nu-
trition (DEUEL) 1930, 89, 77

—, mechanism (NASH) 1929, 83, 139
(DEUEL) 1930, 89, 77

—, nature (SHORR, LOEBEL,
and RICHARDSON) 1930, 86, 529

Gastrointestinal absorption, ef-
fect (WILSON) 1932, 97, 497

Glucose tolerance curves, effect
(DEUEL) 1930, 87, xxxvi

Glycogen storage, ligated ure-
ter effect (NASH) 1929, 83, 139

Glycosuria, glucose oxidation
(BOOTHBY, WILHELMJ, and
WILSON) 1929, 83, 657

Phlorhizin—continued:

Glycosuria, metabolism, thyroidectomy effect (DANN, CHAMBERS, and LUSK)

1931-32, 94, 511

Inorganic metabolism, influence (KASTLER)

1928, 76, 643

Poisoning, fat transport, lymph system (RONY, MORTIMER, and IVY)

1932, 96, 737

Propionic acid, ω -hydroxy derivatives of, fate, effect (CORLEY and MARVEL)

1929, 82, 77

Specific dynamic action, effect (CHAMBERS and LUSK)

1929-30, 85, 611

Valeric acid, ω -hydroxy derivatives of, fate, effect (CORLEY and MARVEL)

1929, 82, 77

Phosphatase: (BODANSKY)

1932-33, 99, 197

Blood, factors influencing (BODANSKY, JAFFE, and CHANDLER)

1932, 97, lxvi

— plasma, bone disease (KAY)

1930, 87, lii

1930, 89, 249

— —, determination (KAY)

1930, 89, 235

— —, hyperparathyroidism (BODANSKY and JAFFE)

1931, 92, xvi

— —, properties (KAY)

1930, 89, 235

Cozymase, relation (RAYMOND)

1928, 79, 637

Magnesium and (JENNER and KAY)

1931, 93, 733

Robison (TITHERINGTON and MORSE)

Phosphatase—continued:

Tissue, mammalian (JENNER and KAY)

1931, 93, 733

—, teleost and elasmobranch (BODANSKY, BAKWIN, and BAKWIN)

1931-32, 94, 551

Phosphate(s): Aqueous humor, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER)

1932, 97, lxxii

Blood, curves, glucose administration effect (McCULLAGH)

1931, 92, xvi

— plasma, carbohydrate metabolism, normal and adrenalectomized animals, relation (CORI and CORI)

1932, 97, lxxxv

— —, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER)

1932, 97, lxxii

Bone, determination (WASHBURN and SHEAR)

1932-33, 99, 21

Buffer mixtures, hydrogen ion concentration, neutral salt influence (ROBINSON)

1929, 82, 775

Cerebrospinal fluid, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER)

1932, 97, lxxii

Hexose interconversion by (SPOEHR and STRAIN)

1929-30, 85, 365

Injection effect (BOLLIGER)

1928, 78, lxxiv

Inorganic, blood plasma, determination, anticoagulants, effect (GAEHLER)

1932-33, 99, 99

— —, purine diuretic influence (BOLLIGER)

Phosphate(s)—continued:

Inorganic, blood serum, calcium and, relation (GREENWALD)

1931, 93, 551

—, —, —, determination (GUNTHER and GREENBERG)

1929, 82, 551

—, —, —, colorimetric (LEIBOFF)

1928, 79, 611

—, —, —, diet influence and diurnal variation (DUPRÉ and SEMEONOFF)

1931-32, 94, 341

—, determination, Kuttner-Lichtenstein method (BODANSKY)

1932-33, 99, 197

—, excretion, urine, fasting, exercise effect (MULDER, PHILLIPS, and VISSCHER)

1932, 98, 269

—, muscle, mammalian (SACKS and DAVENPORT)

1928, 79, 493

—, urine, purine diuretic influence (BOLLIGER)

1928, 76, 797

Tetany, rickets (SHOHL and BROWN)

1929, 84, 501

Urine, glomerulus, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER)

1932, 97, lxxii

—, morning (HUBBARD, MUNFORD, TYNER, and ALLISON)

1931, 92, xxix

Phosphatide: *Bacillus lepræ*, fraction (ANDERSON and UYER)

1932, 97, 617

Timothy bacillus (PANGBORN and ANDERSON)

1931-32, 94, 465

Phosphatide—continued:

Tubercle bacillus, avian (ANDERSON and ROBERTS)

1929-30, 85, 519

—, bovine (ANDERSON and ROBERTS)

1930, 89, 599

—, mannose and inosite in (ANDERSON and ROBERTS)

1930, 89, 611

Phosphocreatine: (FISKE and SUBBAROW)

1929, 81, 629

Phospholipid(s): Blood, determination, oxidative (BLOOR)

1929, 82, 273

— plasma, epinephrine and insulin effect, amyralized dogs (MILLER)

1933, 100, lxx

—, low values (BOYD)

1931, 91, 1

Fat metabolism, rôle (SINCLAIR)

1932, 95, 393

Fatty acids, blood, lactation cycle (MAYNARD, HARRISON, and McCAY)

1931, 92, 263

—, tissue, diet influence (SINCLAIR)

1930, 86, 579

Growth influence (SINCLAIR)

1930, 88, 575

Intestinal mucosa, fat absorption, rôle (SINCLAIR)

1929, 82, 117

Liver, fat absorption, rôle (SINCLAIR)

1929, 82, 117

Metabolism (SINCLAIR)

1930, 86, 579

1930, 88, 575

1931, 92, 245

1932, 96, 103

—, dietary deficiencies, effect (MONAGHAN)

1932, 98, 21

— rate (SINCLAIR)

1930, 87, xxiii

1932, 95, 393

Phospholipid(s)—*continued*:

Muscle, fat absorption, rôle
(SINCLAIR) 1929, 82, 117

Tissue, determination, oxidative (BLOOR) 1929, 82, 273

Unsaturation, tissues, fat influence (SINCLAIR)

1931, 92, 245

—, —, — ingested, relation
(SINCLAIR) 1932, 96, 103

Phosphoric acid: Ortho-, phosphorus supplement, ration, effect (TURNER, KANE, and HALE) 1931, 92, xiv

Phosphoric ester: Blood cell, red, rickets (KAY)

1932-33, 99, 85

Liver, rickets (KAY)

1932-33, 99, 85

Phosphorus: Acid-soluble, blood plasma, nature (GREENWALD and LEVY) 1932, 97, xci

— compounds, muscle, parathyroid tetany (DAVENPORT, DIXON, and RANSON)

1929, 83, 741

—, milk, determination (SANDERS) 1931, 90, 747

Balance, exercise effect (TURNER and HARTMAN)

1928, 78, xxvii

—, lactation (HUNSCHER)

1928, 78, xxvi

Biological material, determination, Lorenz-Pregl technique (BROOKE and SMITH)

1933, 100, xxiii

Blood cells, distribution, ergosterol, irradiated, effect (GUEST and WARKANY)

1933, 100, 445

Phosphorus—*continued*:

Blood, determination (KUTNER and LICHTENSTEIN)

1932, 95, 661

—, distribution, diet effect (HELLER, HUNTER, and THOMPSON) 1932, 97, 127

—, —, fish, eel, and turtle (McCAY) 1931, 90, 497

—, —, insulin and pancreatotomy effect (KERR)

1928, 78, 35

—, —, lactation, dietary fat relation (McCAY and MAYNARD) 1931, 92, 273

—, partition, rachitic and non-rachitic calves (STARE and ELVEHJEM) 1932, 97, 511

— plasma, distribution, ergosterol, irradiated, effect (GUEST and WARKANY)

1933, 100, 445

— serum calcium, rickets, administration effect (HAMILTON, KAJDI, and MEEKER)

1930, 88, 331

— —, pregnancy (MULL and KINNEY) 1933, 100, lxxiii

Brain, rickets and tetany (HESS, GROSS, WEINSTOCK, and BERLINER)

1932, 98, 625

Calcium and (SHELLING)

1932, 96, 195, 215, 229

Calcium-, complex, filtrable, adsorbable, blood serum (BENJAMIN) 1933, 100, 57

—, levels, diet, rickets production (BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN)

1932, 98, 207

Phosphorus—continued:

- Calcium-, ratio, diet, growth, calcification, and blood, effect (BETHKE, KICK, and WILDER) 1932, 98, 389
- , —, —, rickets production (SHOHL, BROWN, ROSE, and SAURWEIN) 1932, 97, x (BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN) 1932, 98, 207
- , —, tibiae, growing chick (HOLMES, PIGOTT, and CAMPBELL) 1931, 92, 187
- Casein (BERGGREN) 1932, 95, 451
- , determination, Fiske-Subbarow colorimetric method (BERGGREN) 1932, 95, 461
- Cerebrospinal fluid and blood serum, distribution between (MERRITT and BAUER) 1931, 90, 215
- Determination, trichloroacetic acid filtrates, source of error (KAY) 1931, 93, 727
- Dietary, parathyroid extract response, effect (MORGAN and GARRISON) 1931, 92, xciv
- , parathyroidectomy, tetany, blood serum calcium and food intake, effect (SHELLING) 1932, 96, 195
- , variations, effect (HAAG and PALMER) 1928, 76, 367
- Equilibrium, hyperthermia (BISCHOFF, MAXWELL, and HILL) 1931, 90, 331
- Hypercalcemia, ergosterol, irradiated, intake, relation (JONES and RAPOPORT) 1931, 93, 153

Phosphorus—continued:

- Hyperphosphatemia, ergosterol, irradiated, intake, relation (JONES and RAPOPORT) 1931, 93, 153
- Inorganic, blood, lactation (HARDING and DOWNS) 1929, 84, 335
- , —, rickets, relation (HESS, WEINSTOCK, RIVKIN, and GROSS) 1930, 87, 37
- , — serum, calcium, and protein, relation (OBERST and PLASS) 1931, 92, xiii
- , —, children, non-nephritic, blood serum calcium and protein, non-relationship (STEARNS and KNOWLTON) 1931, 92, xii, 639
- , —, ergosterol, activated, effect (MASSENGALE and NUSSMEIER) 1930, 87, 415
- , —, forms (BENJAMIN) 1933, 100, 57
- , —, —, normal, rachitic, and hypercalcemic conditions (BENJAMIN and HESS) 1933, 100, 27
- , —, —, inanition (SCHELLING) 1930, 89, 575
- , —, —, pregnancy, parturition, and puerperium, serum calcium and protein, relation (OBERST and PLASS) 1931, 92, xiii
- , —, —, serum calcium and, influence (PETERS and ERIKSSON) 1929, 84, 155
- , —, —, vitamin B deficiency (SCHELLING) 1930, 89, 575
- , —, —, women (MULL and BILL) 1932, 97, lxx

Phosphorus—continued:

Inorganic, blood, women, cyclic variations (OKEY, STEWART, and GREENWOOD)

1930, 87, 91

Labile, muscle (IRVING and WELLS)

1928, 77, 97

Lecithin, blood serum, beef tissue feeding (MULLER)

1929, 84, 345

Lipoid. See Lipoid phosphorus.

Low, rickets, healing mechanism (KRAMER, SHEAR, and SIEGEL)

1931, 91, 271

Metabolism (TURNER and HARTMAN)

1928, 78, xxvii

—, aluminum effect (COX, DODDS, WIGMAN, and MURPHY)

1931, 92, xi

—, bone disease, relation (STEARNS and BOYD)

1930, 87, xv, lvi

—, ergosterol, irradiated, effect (BROWN and SHOHL)

1930, 86, 245

(KERN, MONTGOMERY, and STILL)

1931, 93, 365

—, hypercalcuria (STEARNS and BOYD)

1930, 87, xv

—, hyperplastic thyroid, vitamin B and iodine influence (SANDBERG and HOLLY)

1932-33, 99, 547

—, hyperthermia (DALY and KNUDSON)

1932, 97, lvii

—, hypocalcuria (STEARNS and BOYD)

1930, 87, lvi

—, iron effect (COX, DODDS, WIGMAN, and MURPHY)

1931, 92, xi

Phosphorus—continued:

Metabolism, lactation, diet reaction influence (GOSS and SCHMIDT)

1930, 86, 417

—, meat diet, prolonged (McCLELLAN, RUPP, and TOSCANI)

1930, 87, 669

—, muscle, autolyzing, normal, hyperthyroid, and adrenalectomized animals (BUELL and STRAUSS)

1932, 97, lxxv

—, — disease (BRAND and HARRIS)

1932, 97, lxii

—, non-rachitogenic diet (SHOHL, BENNETT, and WEED)

1928, 79, 257

—, pregnancy, diet reaction influence (GOSS and SCHMIDT)

1930, 86, 417

—, rickets (SHOHL and BENNETT)

1928, 76, 633

—, —, ergosterol, irradiated (BROWN and SHOHL)

1930, 86, 245

—, yeast, irradiated, milking cows, effect (HART, STEENBOCK, KLINE, and HUMPHREY)

1930, 86, 145

Microdetermination, colorimetric (KUTTNER and LICHTENSTEIN)

1930, 86, 671

Milk as source (KRAMER, LATZKE, and SHAW)

1928, 79, 283

Muscle (DAVENPORT and SACKS)

1929, 81, 469

(DAVENPORT, DIXON, and RANSON)

1929, 83, 741

—, cardiac, autolyzing, normal, thyroxinized, and adrenalectomized animals, changes (BUELL, STRAUSS, and ANDRUS)

1932, 98, 645

Phosphorus—continued:

Muscle, distribution, delayed relaxation (DIXON, DAVENPORT, and RANSON)

1929, 82, 61

—, gastrocnemius, autolyzing, normal, thyroxinized, and adrenalectomized animals, changes (BUELL, STRAUSS, and ANDRUS)

1932, 98, 645

—, insulin effect (KERR and BLISH)

1932, 97, 11

—, striated, distribution, age, diet, and irradiated ergosterol, influence (COLE)

1931, 92, xv

(COLE and KOCH)

1931-32, 94, 263

—, tetanus toxin effect (DAVENPORT, DAVENPORT, and RANSON)

1930, 87, 295

Organic, blood, microdetermination, colorimetric (KUTTNER and LICHTENSTEIN)

1932, 95, 661

Orthophosphoric acid as ration supplement, effect (TURNER, KANE, and HALE)

1931, 92, xiv

Retention, cereal influence (BURTON)

1929-30, 85, 405

—, crude fiber effect (BLOOM)

1930, 89, 221

—, pregnancy (COONS and BLUNT)

1930, 86, 1

Sodium phosphate, various forms, ration supplement, comparative effect (TURNER, KANE, and HALE)

1931, 92, xiv

Phosphorus—continued:

Storage, growing children (HUNSCHER, COPE, NOLL, and MACY)

1933, 100, lv

Utilization, lactation (HUNSCHER)

1930, 86, 37

(MACY, HUNSCHER, McCOSH, and NIMS)

1930, 86, 59

(DONELSON, NIMS, HUNSCHER, and MACY)

1931, 91, 675

—, —, cod liver oil and yeast supplements (MACY, HUNSCHER, McCOSH, and NIMS)

1930, 86, 59

—, postlactation period (DONELSON, NIMS, HUNSCHER, and MACY)

1931, 91, 675

—, pregnancy (MACY, HUNSCHER, NIMS, and McCOSH)

1930, 86, 17

Phthioic acid: Tubercle bacillus, fat, acetone-soluble (ANDERSON and CHARGAFF)

1929-30, 85, 77

— —, human, levorotatory acid in (ANDERSON)

1932, 97, 639

— —, preparation and properties (ANDERSON)

1929, 83, 169

Picrate-palladium: Solution, hydrogen determination, gas mixtures (VAN SLYKE and HANKE)

1932, 95, 587

Picric acid: Purification, creatinine determination (BENEDICT)

1929, 82, 1

Pigment: Apple, formation, light effect (PEARCE and STREETER)

1931, 92, 743

Pigment—continued:

- Blood, determination, spectrophotometric (RAY, BLAIR, and THOMAS) 1932, 98, 63
 —, oxygen capacity, hepatectomy effect (STIMSON and HRUBETZ) 1928, 78, 413
 Grape, chemistry (SHRINER and ANDERSON) 1928, 80, 743
 Urine, normal, extraction (DRABKIN) 1930, 88, 433
 —, —, properties (DRABKIN) 1930, 88, 443
 Yellow, blood serum and muscle (DRABKIN) 1928, 78, xii
- Pineapple:** Ash, inorganic, anemia, severe, effect (ROBSCHKEIT-ROBBINS, ELLEN, SPERRY, and WHIPPLE) 1928, 79, 563
- Piperazine:** Keto-, alkali action (LEVENE and STEIGER) 1930, 86, 703
 (LEVENE, STEIGER, and MARKER) 1931, 93, 605
 —, chemical constitution and hydrolysis rate, relation (LEVENE, BASS, and STEIGER) 1929, 81, 697
 (LEVENE, ROTHEN, STEIGER, and OSAKI) 1930, 86, 723
 —, hydrochloric acid action (LEVENE and STEIGER) 1930, 86, 703
 —, hydrolysis, alkali (LEVENE, ROTHEN, STEIGER, and OSAKI) 1930, 86, 723
 N-Methylketo-, hydrolysis, alkali (LEVENE, BASS, and STEIGER) 1929, 81, 697

- Pipette:** Blood, Van Slyke gasometric apparatus (GUEST) 1931-32, 94, 507
- Pitocin:** Properties (DU VIGNEAUD, SEALOCK, SIFFERD, KAMM, and GROTE) 1933, 100, xciv
- Pitressin:** Properties (DU VIGNEAUD, SEALOCK, SIFFERD, KAMM, and GROTE) 1933, 100, xciv
- Pituitary:** Anterior, estrin effect (D'AMOUR) 1931, 92, lxxxv
 —, gonad-stimulating substance, fractionation (WALLEN-LAWRENCE) 1933, 100, xcvi
 —, growth-promoting principle, neoplasm growth, effect (BISCHOFF, MAXWELL, and ULLMANN) 1932, 97, cii
 —, male hormone and, effect (FUNK and HARROW) 1932, 97, cviii
 (HARROW, NAIMAN, and FUNK) 1933, 100, lii
 —, substances, thyroid gland iodine, influence (SCHOCKAERT and FOSTER) 1932, 95, 89
- Hormones,** interconversion (KAMM, GROTE, and ROWE) 1931, 92, lxix
- Like hormone,** anterior, properties (COLLIP, THOMSON, and SELYE) 1933, 100, xxxi
- substance, anterior, urine, pregnancy (KATZMAN and DOISY) 1932, 97, lii
 1932, 98, 739
- Posterior, β -hormone** (KAMM, GROTE, and ROWE) 1931, 92, lxix
- See also Hypophysis.*

- Pituitary extract:** Anterior
(GAEBLER) 1933, 100, xlv
—, acid, blood and thyroid
gland iodine, effect (CLOSS,
LOEB, and MACKAY)
1932, 96, 585
—, nitrogen balance and urine
volume, effect (GAEBLER)
1932, 97, li,
Posterior, antidiuretic activ-
ity (GROTE, JONES, and
KAMM) 1931, 92, xcv
Properties (COLLIP, THOMSON,
and SELYE) 1933, 100, xxxii
- Plant:** Ash, acid-base balance,
determination (FREAR)
1930, 88, 675
Coloring matter, robinin
(SANDO) 1931-32, 94, 675
Extracts, amide nitrogen de-
termination, error (VICKERY
and PUCHER) 1931, 90, 179
—, high nitrate nitrogen, nitro-
gen distribution (CHIBNALL
and MILLER) 1931, 90, 189
—, sugars, determination
(PHILLIPS) 1932, 95, 735
Hemagglutinins (GODDARD and
MENDEL) 1929, 82, 447
Iodine-absorbing material
(MARINE, BAUMANN, and
WEBSTER) 1930, 89, 213
Materials, carbon dioxide evo-
lution, hydrochloric acid ac-
tion on (ANDERSON)
1931, 91, 559
Matter, aluminum (KAHLEN-
BERG and CLOSS)
1929, 83, 261
Reducing material (MARINE,
BAUMANN, and WEBSTER)
1930, 89, 213

Plant—continued:

- Sulfur, determination, Bene-
dict-Denis method (FREAR)
1930, 86, 285
Tissue, acids, determination
(PUCHER, VICKERY, and
WAKEMAN) 1932, 97, 605
—, greenness, vitamin A asso-
ciation (CRIST and DYE)
1929, 81, 525
1931, 91, 127
—, nitrate nitrogen determina-
tion (VICKERY, PUCHER, and
WAKEMAN) 1932, 97, lxxxix
—, nitric acid determination
(PUCHER, VICKERY, and
WAKEMAN) 1932, 97, 605
—, vitamin A stability (SHEER-
MAN, QUINN, DAY, and MIL-
LER) 1928, 78, 293
—, — B₁ adsorption (MILLER
and ABEL) 1933, 100, 731
Vitamin synthesis, light source
effect (HELLER)
1928, 76, 499
- Pneumococcus:** Antipneumococ-
cus, blood serum globulin,
fractional precipitation, vary-
ing hydrogen ion concentra-
tion (REINER and REINER)
1932, 95, 345
Polysaccharides, type-specific,
preparation (GOEBEL)
1930, 89, 395
Type I and II, lipase actions
(FALK and MCGUIRE)
1932, 97, 651
— III, chemistry (STULL)
1929, 82, 641
— —, specific polysaccharide,
molecular size (BABERS and
GOEBEL) 1930, 89, 387

- Pneumonia: Metabolism** (GREENWALD) 1929-30, 85, 447
Organic acid excretion (GREENWALD) 1929-30, 85, 447
- Podarke obscura:** Sulfhydryl compounds, regeneration rate, effect (MORGULIS and GREEN) 1931, 92, xcv
- Poison: Toad, chemistry** (JENSEN and CHEN) 1930, 87, xxxi, 741, 755
 1932, 97, cx
 (JENSEN, CHEN, and CHEN) 1933, 100, lvii
See also Ch'an su, Venom.
- Pollen: Ragweed, allergically active substance** (STULL, COOKE, and CHOBOT) 1931, 92, 569
- Polycythemia: Cobalt, blood volume** (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932-33, 99, 457
 —, manganese effect (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932-33, 99, 465
- Inorganic elements, production** (MYERS, BEARD, and BARNES) 1931-32, 94, 117
- Milk-iron-copper diet, cobalt supplement** (ORTEN, UNDERHILL, MUGRAGE, and LEWIS) 1932, 96, 11
- Polymerization: Condensation and** (LEVENE and WALTI) 1928, 77, 685
 1928, 78, 23
 1928, 79, 363
 1929, 84, 39
 1930, 88, 771
 1931-32, 94, 353
- Polynucleotidase: Intestine** (LEVENE and DILLON) 1932, 96, 461
- Polypeptides: Levo-alanine-containing, alkali action** (LEVENE and YANG) 1932-33, 99, 405
- Racemization, alkali action** (LEVENE and STEIGER) 1932, 98, 321
- Polysaccharides: Specific, molecular weight** (HEIDELBERGER and KENDALL) 1932, 96, 541
 —, physicochemical properties (HEIDELBERGER and KENDALL) 1932, 95, 127
 —, pneumococcus Type III, molecular size (BABERS and GOEBEL) 1930, 89, 387
- Tuberculin, determination, Shaffer-Hartmann and Hagedorn-Jensen methods, comparison** (MUNDAY and SEIBERT) 1933, 100, 277
- Type-specific, pneumococcus, preparation** (GOEBEL) 1930, 89, 395
- Pork: Soft** (ELLIS and ZELLER) 1930, 89, 185
- Potassium: Blood cells and serum, distribution between** (MCINTYRE) 1932, 98, 115
 — —, red, permeability, blood serum influence (KERR) 1929-30, 85, 47
 —, distribution, insulin and pancreatectomy, effect (KERR) 1928, 78, 35
 — serum, determination (TAYLOR) 1930, 87, 27
 (BREEH and GAEBLER) 1930, 87, 81
 (SOBEL and KRAMER) 1932, 97, lxxxix
- Bound, muscle** (CALLISON) 1931, 90, 665

Potassium—continued:

- Determination, colorimetric
(JACOBS and HOFFMAN) 1931, 93, 685
(SOBEL and KRAMER) 1933, 100, 561
—, Kramer-Tisdall method
(MORGULIS and PERLEY) 1928, 77, 647
— with sodium (BROWN and SHOHL) 1931, 91, 745
Microdetermination (SHOHL and BENNETT) 1928, 78, 643
Muscle cell, Donnan equilibrium effect (MITCHELL) 1928, 78, x
Precipitation as potassium sodium cobaltinitrite (HUBBARD) 1933, 100, 557
Potassium chloride: Ingestion effect (WILEY, WILEY, and WALLER) 1932, 97, lvi
Potassium cyanide: Linseed oil emulsions, oxidation effect (WRIGHT and VAN ALSTYNE) 1931, 93, 71
Potassium ferricyanide: Blood serum, oxidation, anemia, effect (WRIGHT and ARTHUR) 1931, 90, 757
Potassium iodide: Thyroid gland size and iodine content, effect (KRAUSS and MONROE) 1930, 89, 581
Potassium sodium cobaltinitrite:
Potassium precipitation (HUBBARD) 1933, 100, 557
Potato: Oxidase, activity determination (STEARN and DAY) 1929-30, 85, 299

Potato—continued:

- Protein, cystine deficiency (BEADLES, BRAMAN, and MITCHELL) 1930, 88, 615
—, nutritive value (JONES and NELSON) 1931, 91, 705
Sweet. *See* Sweet potato.
Potential: Glass electrode, measurement (FOSBINDER and SCHOONOVER) 1930, 88, 605
Liquid junction, single ion activity coefficient, determination, electrometric, rôle (STADIE and HAWES) 1928, 78, xxix
Potentiometer: Electron tube, hydrogen ion concentration determination, blood serum (STADIE, O'BRIEN, and LAUG) 1931, 91, 243
— — — concentration determination, glass electrode (STADIE) 1929, 83, 477
Vacuum tube, for glass electrode (DuBois) 1930, 88, 729
Pregnancy: Abnormal, acid-base equilibrium (KYDD, OARD, and PETERS) 1932, 98, 241
Acid-base equilibrium (KYDD) 1931, 91, 63
(MYERS, MUNTWYLER, and BILL) 1932, 98, 253
Alkalosis (KYDD and PETERS) 1932, 98, 261
(MYERS, MUNTWYLER, and BILL) 1932, 98, 267
Blood, effect (DAVIS and BODANSKY) 1932, 97, lv
— serum acid and base (OARD and PETERS) 1929, 81, 9
— — calcium (MULL and KINNEY) 1933, 100, lxxiii

Pregnancy—continued:

- Blood serum calcium, protein, and phosphorus, inorganic, relation (OBERST and PLASS) 1931, 92, xiii
- — phosphorus (MULL and KINNEY) 1933, 100, lxxiii
- urea, dietary protein effect (PARSONS) 1930, 88, 311
- Calcium metabolism, diet reaction influence (GOSS and SCHMIDT) 1930, 86, 417
- retention (COONS and BLUNT) 1930, 86, 1
- utilization (MACY, HUNSCHER, NIMS, and MCCOSH) 1930, 86, 17
- Hydrogen ion concentration (KYDD) 1931, 91, 63
- Iron retention (COONS) 1932, 97, 215
- Magnesium retention (COONS and BLUNT) 1930, 86, 1
- Nitrogen retention (COONS and BLUNT) 1930, 86, 1
- Ovary, effect (CARTLAND, HEYL, and NEUPERT) 1929-30, 85, 539
- Phosphorus metabolism, diet reaction influence (GOSS and SCHMIDT) 1930, 86, 417
- retention (COONS and BLUNT) 1930, 86, 1
- utilization (MACY, HUNSCHER, NIMS, and MCCOSH) 1930, 86, 17
- Tooth changes (MULL and KINNEY) 1933, 100, lxxiii
- Toxemias, blood acid-base equilibrium (MUNTWYLER, LIMBACH, BILL, and MYERS) 1931, 90, 607

Pregnancy—continued:

- Urine extract, hypophysectomy, effect (WADE, KATZMAN, and JORGENSEN) 1933, 100, xcvi
- , ovarian hormone preparation (DOISY, VELER, and THAYER) 1930, 86, 499
- , pituitary-like substance, anterior (KATZMAN and DOISY) 1932, 97, lii
1932, 98, 739
- Primate: Ketosis, fasting effect (FRIEDEMANN) 1928, 78, lxi
- Progesterin: Preparation (ALLEN) 1932, 98, 591
- Prolamin: Feterita and milo (JONES and CSONKA) 1930, 88, 305
- Proline: Bile salt metabolism effect (WHIPPLE and SMITH) 1930, 89, 705
- Hydroxy-, color test (MORSE) 1933, 100, 373
- , — — for scleroproteins (MORSE) 1933, 100, 373
- , lability, protein molecule (MORSE) 1933, 100, lxxiii
- , nutrition, rôle (ST. JULIAN and ROSE) 1932, 98, 445
- , preparation (KLABUNDE) 1931, 90, 293
- Nutrition, rôle (ST. JULIAN and ROSE) 1932, 98, 445
- Oxidation by liver (BERNHEIM and BERNHEIM) 1932, 96, 325
- Propionic acid(s): α , α' -Bis-acetyl-amino-, esters, preparation (NICOLET) 1933, 100, 287

Propionic acid (s)—continued:

Chloro-, chlorosuccinic acid, configurational relationship (LEVENE and HALLER)

1929, 83, 185

2-Chloro-, lactic acid, configurational relationship (LEVENE and HALLER) 1929, 81, 703

α , β -Diamino-, titration constants, various isomers and, relation (GREENSTEIN)

1932, 96, 499

α -Dihydroxy- β -dithiodi-, cystine-deficient diet, supplement (WESTERMAN and ROSE)

1928, 79, 413

Disubstituted, with cyclohexyl group, configurational relationship (LEVENE and MARKER)

1932, 97, 563

—, — ethyl group, optical rotation influenced by substituting groups (LEVENE and MARKER)

1931, 91, 687

—, — methyl group, optical rotation influenced by substituting groups (LEVENE and MARKER)

1931, 91, 77

—, — phenyl group, configurational relationship (LEVENE and MARKER)

1931, 93, 749

1932, 97, 563

(LEVENE, MARKER, and ROTHEN)

1933, 100, 589

ω -Hydroxy derivatives, fate, phlorhizin effect (CORLEY and MARVEL)

1929, 82, 77

3-Indole-, tryptophane-deficient diet, supplement, growth on (BERG, ROSE, and MARVEL)

1929-30, 85, 219

Phenyl- β -hydroxy-, metabolism (QUICK)

1928, 80, 515

Propylbutylcarbinol: Lactic acid, configurational relationship (LEVENE and HALLER)

1929, 83, 579

Prorennin: Isolation (KLEINER and TAUBER)

1932, 96, 755

Protease: Anti-, insulin protection (HARNED and NASH)

1932, 97, 443

Protein(s): Acid-, combination (ALMQUIST and GREENBERG)

1931, 93, 167

Aggregation, urea-water solutions (BURK and GREENBERG)

1930, 87, 197

Alkali-, combination (ALMQUIST and GREENBERG)

1931, 93, 167

Alkali effect (CSONKA and HORN)

1931, 93, 677

Alkaline earth elements and, complex ion formation in solutions of (MIYAMOTO and SCHMIDT)

1932-33, 99, 335

Amide nitrogen, blood, urine ammonia source (NASH and WILLIAMS)

1931-32, 94, 783

(WILLIAMS and NASH)

1933, 100, 515, 737

Amides, blood, synthesis from ammonia (WILLIAMS and NASH)

1933, 100, 515

Amino acids, basic (BLOCK and VICKERY)

1931, 93, 113

—, —, determination (VICKERY and LEAVENWORTH)

1928, 76, 707

(VICKERY and BLOCK)

1931, 93, 105

—, —, diet inadequacy, supplement (ELLIS and ROSE)

1931-32, 94, 167

Protein(s)—continued:

Arginine determination, arginase method (HUNTER and DAUPHINEE)

1929-30, 85, 627

Aromatic aldehyde derivatives (DAKIN) 1929, 84, 675

Aspartic acid determination (JONES and MOELLER)

1928, 79, 429

Avocado (JONES and GERSDORFF) 1929, 81, 533

Bence-Jones (MEDES)

1933, 100, lxi

Blood, amide nitrogen relation (BLISS) 1929, 81, 405

—, dietary, bile salt metabolism effect (SMITH and WHIPPLE) 1930, 89, 689

—, edema fluids, nephritic urine, comparison (CAVETT) 1930, 87, xvi

—, molybdic acid precipitant (BENEDICT and NEWTON) 1929, 82, 5

—, partition, scopometry (EXTON and ROSE) 1932, 97, xxvii

— plasma, determination, anticoagulants, effect (GAEBLER) 1932-33, 99, 99

— —, diffusibility (GAEBLER) 1931, 92, xliii
1931, 93, 467

— —, fish, distribution (LEPKOVSKY) 1929-30, 85, 667

— —, pathological, diffusibility (GAEBLER) 1931, 93, 467

— —, regeneration (SCHLUTZ, SWANSON, and ZIEGLER) 1928, 78, vii

Protein(s)—continued:

Blood plasma, solubility, factors affecting (BUTLER and MONTGOMERY)

1932-33, 99, 173

—, precipitation (BENEDICT) 1931, 92, 135

—, respiratory (REDFIELD, COOLIDGE, and SHOTTS) 1928, 76, 185

(REDFIELD, COOLIDGE, and MONTGOMERY) 1928, 76, 197

(REDFIELD and MASON) 1928, 77, 451

(REDFIELD, HUMPHREYS, and INGALLS) 1929, 82, 759

— serum, calcium and, relation (PETERS and EISENBERG) 1929, 84, 155

(GREENWALD) 1931, 93, 551

— —, children, non-nephritic, blood serum calcium and inorganic phosphorus, non-relationship (STEARNS and KNOWLTON)

1931, 92, xii, 639

— —, cystine (TUCHMAN and REINER) 1933, 100, 775

(REINER and SOBOTKA) 1933, 100, 779

— —, deficiency, protein-low diet (FRISCH, MENDEL, and PETERS) 1929, 84, 167

— —, determination, colorimetric (GREENBERG) 1929, 82, 545

— —, fish, distribution (LEPKOVSKY) 1929-30, 85, 667

— —, fractionation (MUSCHEL) 1928, 78, 715

— —, inanition (SCHELLING) 1930, 89, 575

Protein(s)—continued:

- Blood serum, osmotic pressure relation (FISHBERG) 1929, 81, 205
- —, pregnancy, parturition, and puerperium, serum calcium and inorganic phosphorus, relation (OBERST and PLASS) 1931, 92, xiii
- — solutions, calcium electrical transference (GREENBERG) 1928, 79, 177
- —, tyrosine (REINER and SOBOTKA) 1933, 100, 779
- —, vitamin B deficiency (SCHELLING) 1930, 89, 575
- —, Wu and Kjeldahl methods, comparison (TUCHMAN and SOBOTKA) 1932, 98, 35
- , tungstomolybdic acid as precipitant (BENEDICT and NEWTON) 1929, 83, 357
- Cereal, biological value, heat effect (MORGAN) 1931, 90, 771
- Coagulated, copper and ferrocyanide ions, resorption (HENDRIX) 1928, 78, 653
- Colon bacillus synthesis (ECKSTEIN and SOULE) 1931, 91, 395
- Corn-meal, body weight, tryptophane supplement, effect (CARY and HUFNAGEL) 1932, 97, xxxii
- Cottonseed, digestibility (GALLUP) 1928, 76, 43
- Creatine-creatinine metabolism, effect (BEARD and BARNES) 1931-32, 94, 49

Protein(s)—continued:

- Cystine, determination, colorimetric (FOLIN and MARZENI) 1929, 83, 103
- Denaturation, reversibility, adsorption and elution (SPIEGEL-ADOLF) 1932, 97, xlv
- Dietary, blood urea, pregnancy and lactation, relation (PARSONS) 1930, 88, 311
- , hair growth, relation (LIGHTBODY and LEWIS) 1929, 82, 485
- , urine sulfur, monobromobenzene ingestion effect (WHITE and LEWIS) 1932, 98, 607
- Digestibility coefficients, vitamin deficiency effect (ST. JULIAN and HELLER) 1931, 90, 99
- , determination, Bergeim method (GALLUP) 1929, 81, 321
- , gossypol effect (GALLUP and REDER) 1931-32, 94, 221
- Dissociation constant, apparent (COHN and GREEN) 1928, 78, xxxii
- Dyes, basic, combination (RAWLINS and SCHMIDT) 1929, 82, 709
- Edema fluids, nephritic urine, blood, comparison (CAVETT) 1930, 87, xvi
- Egg, carbohydrate, molecular size (LEVENE and ROTHEN) 1929, 84, 63
- yolk, bile salt metabolism effect (SMITH and WHIPPLE) 1930, 89, 689

Protein(s)—continued:

- Free diet, nitrogen partition, urine, and heat production, effect (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY)

1928, 76, 391

- Glutamic acid determination (JONES and MOELLER)

1928, 79, 429

- Glycine synthesis, relation (GRIFFITH) 1930, 87, xiii

- High diets, nephritis, unilaterally nephrectomized rats (BLATHERWICK, MEDLAR, CONNOLLY, and BRADSHAW)

1931, 92, lxxxiv

- Hydrolysates, fractionated, specific dynamic action, relation (RAPPORT and BEARD)

1928, 80, 413

- Hydrolysis, alkali action (LE-
VENE and BASS)

1929, 82, 171

- , pepsin, neutral salts effect (McMEEKIN) 1928, 78, xliii

- Hypercholesterolemia, fasting, administration effect (SHOPE)

1928, 80, 133

- Insulin, denaturation (BIS-
CHOFF and SAHYUN)

1929, 81, 167

- Intake, children, Chinese, American-born (WANG and HAWKS)

1930, 87, v

- , vitamin G and (SHERMAN and DERBIGNY)

1932-33, 99, 165

- Integument, behavior, post mortem (MORSE)

1931, 92, xxxix

- Iron, combination (SMYTHE and SCHMIDT)

1930, 88, 241

Protein(s)—continued:

- Low diet, edema production and blood serum protein deficiency (FRISCH, MENDEL, and PETERS) 1929, 84, 167

- , nitrogen equilibrium (McCLELLAN and HANNON)

1932, 95, 327

- Meat, bile salt metabolism effect (SMITH and WHIPPLE)

1930, 89, 689

- Metabolism, creatine-creatinine conversion, influence (BOLLMAN)

1929-30, 85, 169

- , endogenous, amino acid stimulation (LUCK and AMS-
DEN) 1931, 92, lxv

- , insulin effect (MILHORAT and CHAMBERS)

1928, 77, 595

- (KIECH and LUCK)

1928, 78, 257

- Methionine determination (BAERNSTEIN)

1932, 97, 663

- Methylsulfonic acid from (VARS) 1933, 100, xciii

- Milk, surrounding fat globules (TITUS, SOMMER, and HART)

1928, 76, 237

- Molal volumes (COHN, Mc-
MEEKIN, EDSALL, and
BLANCHARD)

1933, 100, xxviii

- Molecule, hydroxyproline la-
bility (MORSE)

1933, 100, lxxiii

- Non-, constituents, diffusible, blood, distribution (FOLIN and SVEDBERG)

1930, 88, 715

Protein(s)—continued:

- Pea, cystine deficiency
(BEADLES, BRAMAN, and MITCHELL) 1930, 88, 615
- Physical chemistry (BURK and GREENBERG) 1930, 87, 197
(FLORKIN) 1930, 87, 629
(GREEN) 1931, 93, 495, 517
1932, 95, 47
- Physicochemical methods characterizing (COHN and GREEN) 1928, 78, xxxii
- Potato, cystine deficiency
(BEADLES, BRAMAN, and MITCHELL) 1930, 88, 615
—, nutritive value (JONES and NELSON) 1931, 91, 705
- Racemic, optical behavior
(CSONKA and HORN) 1931, 93, 677
- Racemization, alkali action
(LEVENE and BASS) 1929, 82, 171
- Requirements, mouse (BING, ADAMS, and BOWMAN) 1932, 97, cvii
- Respiratory, blood (REDFIELD, COOLIDGE, and SHOTTS) 1928, 76, 185
(REDFIELD, COOLIDGE, and MONTGOMERY) 1928, 76, 197
(REDFIELD and MASON) 1928, 77, 451
(REDFIELD, HUMPHREYS, and INGALLS) 1929, 82, 759
- Saccharomyces cerevisiae*
(CSONKA) 1933, 100, xxxiii
- Salting out (GREEN) 1931, 93, 495
- Secondary, from ipomoein, enzymic isolation (JONES and GERSDORFF) 1931, 93, 119

Protein(s)—continued:

- Solutions, dielectric constant
(WYMAN) 1931, 90, 443
—, freezing point depression determination (STADIE and SUNDERMAN) 1931, 91, 217
—, transference and conductivity (MIYAMOTO and SCHMIDT) 1932-33, 99, 335
- Soy bean, precipitation, ammonium sulfate (JONES and CSONKA) 1932, 97, xxix
- Specific dynamic action (RAPPORT and BEARD) 1928, 80, 413
- Split-products, metabolism effect (RAPPORT and BEARD) 1928, 80, 413
- Stomach evacuation, calcium citrate and carbonate, effect (RUSSELL and McDONALD) 1930, 87, iv
- Sulfur (GORTNER and SINCLAIR) 1929, 83, 681
(THOR and GORTNER) 1932-33, 99, 383
— distribution (BAERNSTEIN) 1932, 97, xxv, 669
- Tryptophane determination
(FOLIN and MARENZI) 1929, 83, 89
— —, vanillin-hydrochloric acid reaction (RAGINS) 1928, 80, 543
— liberation, enzymes (RAGINS) 1928, 80, 551
- Tuberculin, fractionation (SEIBERT and MUNDAY) 1930, 87, xvii
- Tyrosine determination
(HANKE) 1928, 79, 587
(FOLIN and MARENZI) 1929, 83, 89

Protein(s)—*continued*:

- Urine, nephritic, edema fluids,
blood, comparison (CAVETT)
1930, 87, xvi
- Yeast (CSONKA)
1933, 100, xxxiii
- Proteolysis:** Conductivity and
(BAERNSTEIN)
1928, 78, xlii, 481
- Enzyme, artificial (BOYD)
1933, 100, xix
- , bacterial (BOOR and
MILLER) 1933, 100, xix
- , in ficin (ROBBINS)
1930, 87, 251
- titration, Gates method
(GILMAN and COWGILL)
1930, 88, 743
- Peptic, arginine and tyrosine
complexes, liberation (TOR-
BET and BRADLEY)
1931, 92, lxxvii
- Protocatechuic acid:** Onion, dis-
ease resistance, relation
(LINK, ANGELL, and WALK-
ER) 1929, 81, 369
(LINK, DICKSON, and WALK-
ER) 1929, 84, 719
- Protopterus æthiopicus:** *See*
Lung-fish.
- Provitamin:** A (QUINN and HART-
LEY) 1931, 91, 633
- D, fractionation (KOCH, KOCH,
and RAGINS)
1929-30, 85, 141
- Pseudomorphine:** Optical activ-
ity (BALLS and WOLFF)
1928, 80, 403
- Puerperium:** Blood serum cal-
cium, protein, and phos-
phorus, inorganic, relation
(OBERST and PLASS)
1931, 92, xiii

- Pulfrich:** Photometer, creatinine
determination (KASSELL)
1933, 100, lviii
- Purine:** Bases, ribopolynucleo-
tides, separation (LEVENE
and JORPES) 1930, 86, 389
- Diuretics, phosphate, incor-
ganic, blood and urine, influ-
ence (BOLLIGER)
1928, 76, 797
- Metabolism (CHRISTMAN and
MOSIER) 1929, 83, 11
(CHRISTMAN) 1930, 86, 477
(ALLEN and CERECEDO)
1931, 93, 293
- Pyocyanine:** Potentiometric
study (FRIEDHEIM and
MICHAELIS) 1931, 91, 355
- Semiquinones, formation from
(MICHAELIS) 1931, 92, 211
- Pyrimidines:** Physiology (EMER-
SON and CERECEDO)
1930, 87, 453
(CERECEDO) 1930, 88, 695
1931, 93, 269
(STEKOL and CERECEDO)
1931, 93, 275
(CERECEDO) 1931, 93, 283
(STEKOL and CERECEDO)
1933, 100, 653, xc
- Sulfur metabolism, effect
(STEKOL and CERECEDO)
1931, 93, 275
- Pyrrrole:** Liver tribasic acid, re-
lation to derivatives (DAKIN
and WEST) 1931, 92, 117
- Oxidations, biological, catalyst
(BERNHEIM and BERNHEIM)
1931, 92, 461
- Pyruvic acid:** Determination
(WENDEL) 1931-32, 94, 717

Pyruvic acid—continued:

3-Indole-, tryptophane-deficient diet, supplement, growth on (BERG, ROSE, and MARVEL) 1929-30, 85, 219

Lactic acid oxidation to, methylene blue, blood effect (WENDEL and SHAFFER) 1930, 87, xx

Phenyl-, oxidation, rabbit (CHANDLER and LEWIS) 1932, 96, 619

Thio- derivatives, cystine-deficient diet (BLOCK and JACKSON) 1931, 92, xci

Quince: Seed, mucilage (RENFREW and CRETCHER) 1932, 97, 503

Quinhydrone: -Collodion electrode (BUGHER) 1931, 92, 513

Electrode, improved (CULLEN) 1929, 83, 535

—, titrimetric (MEEKER and REINHOLD) 1928, 77, 505

Quinine: Adsorption, fullers' earth and norit (GUERRANT and SALMON) 1928, 80, 67

Quinones: Semi-, formation from dyestuffs and pyocyanine (MICHAELIS) 1931, 92, 211

R

Racemization: (LEVENE and STEIGER) 1928, 76, 299
(LEVENE and BASS) 1928, 78, 145

1929, 82, 171
(LEVENE and STEIGER) 1930, 86, 703

Racemization—continued:

(LEVENE, STEIGER, and MARKER) 1931, 93, 605

(LEVENE and STEIGER) 1932, 98, 321

(LEVENE and YANG) 1932-33, 99, 405

Radio waves: Hyperthermia, acid-base equilibrium (BISCHOFF, LONG, and HILL) 1931, 90, 321

Radioactivity: Vitamin A destruction (HOGAN, SHREWSBURY, and BRECKENRIDGE) 1930, 87, xlii

Raffinase: Inactivation, heat (NELSON and PAPADAKIS) 1928, 80, 163

Ragweed: Pollen, allergically active substance (STULL, COOKE, and CHOBOT) 1931, 92, 569

Ration: Milk production, cow (TURNER and HARTMAN) 1928, 78, xxvii

— vitamins B and G, influence (HUNT and KRAUSS) 1931, 92, 631

Synthetic, hemoglobin building (ELVEHJEM and HART) 1931, 91, 37

—, yeast supplement (KENNEDY and PALMER) 1928, 76, 591

Vitamin E destruction in (WADDELL and STEENBOCK) 1928, 80, 431

See also Diet, Food.

Rattlesnake: Blood (LUCK and KEELER) 1929, 82, 703

Ray: *See* Cathode ray, Roentgen ray, Ultra-violet ray.

- Reducing substances:** Aqueous humor, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii
- Blood, fish (WHITE) 1928, 77, 655
- plasma, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii
- Cerebrospinal fluid, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii
- Non-glucose, blood, colon bacillus action (HUBBARD and DEEGAN) 1930, 86, 575
- Non-sugar, blood and urine (BENEDICT and NEWTON) 1929, 83, 361
- Urine (WEST) 1931, 92, xxiv
- , glomerulus, frog and *Necturus* (WALKER, ELLINWOOD, and REISINGER) 1932, 97, lxxii
- , nephritis, identification (HILLER) 1931, 91, 735
- Reduction:** Phytochemical (LE-
VENE and WALTI) 1931-32, 94, 361
- Refecation:** (PARSONS, KELLY, and
HUSSELMANN) 1933, 100, lxxvi
- Rennin:** Chemistry (TAUBER) 1932-33, 99, 257
- Milk coagulation (STONE and
ALSBERG) 1928, 78, 557
- Pepsin separation (TAUBER
and KLEINER) 1932, 96, 745
- Pro-, isolation (KLEINER and
TAUBER) 1932, 96, 755
- Purification (TAUBER and
KLEINER) 1932, 96, 745
- Reproduction:** Acid ingestion ef-
fect (LAMB and EVVARD) 1931-32, 94, 415
- Aluminum administration ef-
fect (MYERS and MULL) 1928, 78, 605
- Cereal effect (ROSE and
McCOLLUM) 1928, 78, 535
- Copper rôle (KEIL and NEL-
SON) 1931, 93, 49
- Metabolism, women (MACY,
HUNSCHER, NIMS, and Mc-
COSH) 1930, 86, 17
(HUNSCHER) 1930, 86, 37
(MACY, HUNSCHER, Mc-
COSH, and NIMS) 1930, 86, 59
(DONELSON, NIMS, HUN-
SCHER, and MACY) 1931, 91, 675
(HUNSCHER, DONELSON,
NIMS, KENYON, and MACY)
1932-33, 99, 507
- Nitrogen utilization (HUN-
SCHER, DONELSON, NIMS,
KENYON, and MACY) 1932-33, 99, 507
- Parathyroid glands, relation
(KOZELKA, HART, and BOH-
STEDT) 1933, 100, 715
(KOZELKA) 1933, 100, lx
- Vegetable effect (ROSE and
McCOLLUM) 1928, 78, 535
- See also* Fertility.
- Respiration:** (*See note on p. 173*)
- Apparatus, acetone as control
substance (CARPENTER, FOX,
and SERREQUE) 1929, 82, 335
- , carbon dioxide and oxygen
determination, indirect calo-
rimetry (McCLENDON, AN-

Respiration—continued:

DERSON, STEGGERDA, CONK-
LIN, and WHITAKER)

1928, 77, 413

Cardiac dyspnea mechanism,
control (CULLEN, HARRISON,
CALHOUN, WILKINS, and
PILCHER) 1931, 92, iv

Chloride excretion, effect
(HUBBARD and ALLISON)

1930, 89, 627

Shock and adrenalin, effect
(LANDIS) 1933, 100, lxi

Theelol effect (MELCHIONNA)
1931, 91, 653

Water excretion, effect (HUB-
BARD and ALLISON)

1930, 89, 627

Respiratory exchange: Blood,
pernicious anemia, during
recovery (DILL, BOCK, VAN
CAULAERT, FÖLLING, HURX-
THAL, and HENDERSON)

1928, 78, 191

Respiratory metabolism: Curves,
glucose and insulin effect
(RABINOWITCH and BAZIN)

1928, 80, 723

Meat diet, prolonged, effect
(McCLELLAN, SPENCER, and
FALK) 1931, 93, 419

Pancreatectomy, exercise
(CHAMBERS, KENNARD, POL-
LACK, and DANN)

1932, 97, 525

Thyroxine effect, prolonged
nitrogen-free diet (DEUEL,
SANDIFORD, SANDIFORD, and
BOOTHBY) 1928, 76, 407

Respiratory quotient: Abnormal,
fat-deficient intake, exercise,
intestinal fermentation, and
diet modification, effect
(WESSON) 1933, 100, 365

Respiratory quotient—continued:

Dextrin ingestion, effect (WES-
SON) 1930, 87, liii

Fat-deficient diet, effect (WES-
SON and BURR)

1931, 91, 525

Synthalin effect (KARR, PETTY,
and SCHUMANN) 1928, 78, xli

Tissue, normal and diabetic
(RICHARDSON, SHORE, and
LOEBEL) 1930, 86, 551

Reticulocyte: Anemia, iron and
copper effect (ELVEHJEM and
SCHULTZE) 1933, 100, xxxix

—, nutritional, iron plus sup-
plements, action (BEARD and
MYERS) 1931, 92, lxii

(BEARD, BAKER, and
MYERS) 1931–32, 94, 123

Hemolysis, phenylhydrazine
hydrochloride (KRAKA)

1930, 86, 223

Retina: Vitamin A (SMITH, YUD-
KIN, KRISS, and ZIMMER-
MAN) 1931, 92, xcii

Rhodymenia palmata: Chromo-
phoric group (LEVENE and
SCHORMÜLLER)

1931, 93, 571

Ribodesose: Thyminose struc-
ture, relation (LEVENE and
MORI) 1929, 83, 803

Ribonucleotide: Hydrolysis rate
(LEVENE and JORPES)

1929, 81, 575

Ribophosphoric acid: Chemical
constitution (LEVENE and
MORI) 1929, 81, 215

Ribopolynucleotide: Purine
bases, separation (LEVENE
and JORPES) 1930, 86, 389

Thymonucleic acid, separation
(LEVENE and JORPES)

1930, 86, 389

- L-Ribose: Synthesis** (AUSTIN and HUMOLLER) 1933, 100, x
- Ribosephosphoric acid: Xanthylic acid, formation from** (LEVENE and HARRIS) 1932, 95, 755
1932, 98, 9
- Riboside(s): Methyl-, normal, ring structure** (LEVENE and TIPSON) 1931, 93, 623
- Triacetyl-1-methyl-d-, isomeric** (LEVENE and TIPSON) 1931, 92, 109
- Rice: Glutelin, optical rotation** (CSONKA, HORN, and JONES) 1930, 89, 267
- Polishings, vitamin B complex, differentiation, lactation** (SURE) 1928, 80, 297
- Rickets: (SHOHL, BENNETT, and WEED)** 1928, 79, 257
- Acid-base equilibrium** (SHOHL, BROWN, ROSE, SMITH, and COZAD) 1931, 92, x
- Antirachitic activation, ergosterol** (BEARD, BURK, THOMPSON, and GOLDBLATT) 1932, 96, 307
- —, milk, irradiated, energy requirements (SUPPLEE, DORCAS, and HESS) 1931-32, 94, 749
- —, mold mycelia (PRUESS, PETERSON, STEENBOCK, and FRED) 1931, 90, 369
- factor balance, chick (KLEIN and RUSSELL) 1931, 93, 693
- —, fate, chicken (KLEIN and RUSSELL) 1931, 93, 693
(RUSSELL, TAYLOR, and WILCOX) 1932-33, 99, 109
- Rickets—continued:**
- Antirachitic factor, milk, human and cow** (OUTHOUSE, MACY, and BREKKE) 1928, 78, 129
- —, oral and intraperitoneal administration (RUSSELL, TAYLOR, and WILCOX) 1932-33, 99, 109
- potency, eggs, ergosterol, activated, effect (MCDONALD and MASSENGALE) 1932-33, 99, 79
- —, ergosterol, ultra-violet light and cathode ray effect (KNUDSON and MOORE) 1928, 78, xix
1929, 81, 49
- —, milk, irradiated (SUPPLEE, BECK, and DORCAS) 1932, 98, 769
- properties, milk and milk derivatives, irradiated (SUPPLEE, FLANIGAN, KAHLENBERG, and HESS) 1931, 91, 773
- substances (BILLS, HONEYWELL, and MACNAIR) 1928, 76, 251
(BILLS and HONEYWELL) 1928, 80, 15
(BILLS, HONEYWELL, and COX) 1928, 80, 557
(COX and BILLS) 1930, 88, 709
- value, milk (STEENBOCK, HART, RIISING, HOPPERT, BASHEROV, and HUMPHREY) 1930, 87, 103
- —, irradiated yeast effect (STEENBOCK, HART, HANNING, and HUMPHREY) 1930, 88, 197

Rickets—continued:

- Beryllium (BRANION, GUYATT, and KAY) 1931, 92, xi
- Blood acid-base equilibrium (SHOHL, BROWN, ROSE, SMITH, and COZAD) 1931, 92, 711
- cell, red, phosphoric ester (KAY) 1932-33, 99, 85
- phosphorus, inorganic, relation (HESS, WEINSTOCK, RIVKIN, and GROSS) 1930, 87, 37
- —, partition (STARE and ELVEHJEM) 1932, 97, 511
- serum calcium, forms (BENJAMIN and HESS) 1933, 100, 27
- — —, phosphorus administration, treatment, and spontaneous healing, effect (HAMILTON, KAJDI, and MEEKER) 1930, 88, 331
- — phosphorus, inorganic, forms (BENJAMIN and HESS) 1933, 100, 27
- Brain calcium and phosphorus (HESS, GROSS, WEINSTOCK, and BERLINER) 1932, 98, 625
- Calcium balances, negative, ultra-violet radiations, effect (STEENBOCK, HART, RIISING, KLETZIEN, and SCOTT) 1930, 87, 127
- metabolism (SHOHL and BENNETT) 1928, 76, 633
- —, ergosterol, irradiated (BROWN and SHOHL) 1930, 86, 245
- Cereals and (STEENBOCK, BLACK, and THOMAS) 1929-30, 85, 585

Rickets—continued:

- Corn, irradiated, and mineral supplements, effect (STEENBOCK, BLACK, and THOMAS) 1929-30, 85, 585
- Dietary acid-base effect (SHOHL, BENNETT, and WEED) 1928, 78, 181
- —, production effect (SHOHL, BROWN, CHAPMAN, ROSE, and SAURWEIN) 1932, 98, 215
- calcium-phosphorus levels, production effect (BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN) 1932, 98, 207
- — ratio, production effect (SHOHL, BROWN, ROSE, and SAURWEIN) 1932, 97, x
- (BROWN, SHOHL, CHAPMAN, ROSE, and SAURWEIN) 1932, 98, 207
- Feces, hydrogen ion concentration (SHOHL and BING) 1928, 79, 269
- Gastrointestinal tract, hydrogen ion concentration, relation (GRAYZEL and MILLER) 1928, 76, 423
- Intestine, hydrogen ion concentration (OSER) 1928, 80, 487
- Liver, phosphoric ester (KAY) 1932-33, 99, 85
- Muscle, striated, calcium, (HAURY) 1930, 89, 467
- Oats, irradiated, and mineral supplements, effect (STEENBOCK, BLACK, and THOMAS) 1929-30, 85, 585
- Phosphorus, low, healing mechanism (KRAMER, SHEAR, and SIEGEL) 1931, 91, 271

Rickets—continued:

- Phosphorus metabolism (SHOHL and BENNETT) 1928, 76, 633
- —, ergosterol, irradiated (BROWN and SHOHL) 1930, 86, 245
- Prevention, milk, irradiated, energy requirement (SUPPLEE, BENDER, and DORCAS) 1932, 97, 63
- Rachitogenic ration, factors influencing (HOLMES and TRIPP) 1932, 97, ix
- Tetany, fasting (WILDER) 1929, 81, 65 (SHOHL and BROWN) 1929, 84, 501
- induction, normal diet (HESS, WEINSTOCK, and GROSS) 1931, 90, 737
- Vioosterol, healing effect (KRAMER, SHEAR, and SIEGEL) 1931, 91, 723
- Wheat, irradiated, and mineral supplements, effect (STEENBOCK, BLACK, and THOMAS) 1929-30, 85, 585
- Robinin:** Plant coloring matter (SANDO) 1931-32, 94, 675
- Robison ester:** Glucose-3-, and glucose-6-phosphate, structure relation (LEVENE and RAYMOND) 1930, 89, 479
- Synthetic (LEVENE and RAYMOND) 1931, 92, 757
- Roentgen ray:** Acid-base equilibrium, influence (SPRUNT) 1931, 92, 605
- Cystine solution, effect (STENSTRÖM and LOHMANN) 1928, 79, 673

Roentgen ray—continued:

- Tissue calcification, investigation by (TAYLOR and SHEARD) 1929, 81, 479
- Tyrosine solution, effect (STENSTRÖM and LOHMANN) 1928, 79, 673
- Rosinduline:** Oxidation-reduction indicator (MICHAELIS) 1931, 91, 369
- Running:** Metabolism (TALBOTT, FÖLLING, HENDERSON, DILL, EDWARDS, and BERGGREN) 1928, 78, 445
- Rye:** Glutelins (CSONKA and JONES) 1929, 82, 17
- , optical rotation (CSONKA, HORN, and JONES) 1930, 89, 267
- Saccharic acid:** *d*-Manno-, *d*-mannuronic acid, synthesis from (NIEMANN and LINK) 1933, 100, 407
- Saccharides:** Oligo-, reduction by (EVERETT and EDWARDS) 1933, 100, xlii
- Saccharinic acid:** Formation from sugar by alkali (SHAFFER and FRIEDEMANN) 1930, 86, 345
- , mechanism (NICOLET) 1932, 97, lxxx
- Saccharoids:** Blood, nature (FASHENA) 1933, 100, 357
- Determination (BENEDICT) 1931, 92, 141
- Saccharomyces cerevisiae:** Proteins (CSONKA) 1933, 100, xxxlii

- Saliva:** Parotid, inorganic constituents, blood serum composition, relation (DE BEER and WILSON) 1932, 95, 671
- Salt:** Economy, heat effect (DILL, JONES, EDWARDS, and OBERG) 1933, 100, 755
- Sapogenin:** Digitalis (JACOBS and FLECK) 1930, 88, 545
- Saponin(s):** (JACOBS and FLECK) 1930, 88, 153
- Antitoxin, action (SCOTT and GLAISTER) 1929, 84, 475
- Hemolysis, hydrogen ion concentration effect (BODANSKY) 1929, 82, 567
- Sarcolactic acid:** Preparation (FREUDENBERG) 1932-33, 99, 153
- Sarcoma:** Rous No. 1, blood, effect (ROE) 1930, 87, liv
- Sarmentocymarin:** (JACOBS and HEIDELBERGER) 1929, 81, 765
- Sugar (JACOBS and BIGELOW) 1932, 96, 355
- Sarmentogenin:** (JACOBS and HEIDELBERGER) 1929, 81, 765
- Scleroprotein:** Hydroxyproline color test for (MORSE) 1933, 100, 373
- Scurvy:** Antiscorbutic property, fruits, drying and sulfur dioxide effect (MORGAN and FIELD) 1929, 82, 579
- Blood, effect (HANKE and KOESSLER) 1928, 80, 499
- Glucuronic acid production (QUICK) 1933, 100, 441
- Like symptoms, sodium fluoride ingestion cause (PHILLIPS) 1933, 100, lxxix
- Sea urchin:** Eggs, lactic acid and carbohydrate (PERLZWEIG and BARRON) 1928, 79, 19
- , oxygen consumption, methylene blue effect (BARRON) 1929, 81, 445
- Sea water:** *See* Water.
- Seaweed:** *L-Fucose*, *D-mannose*, separation (MANSKE) 1930, 86, 571
- See also* *Macrocystis pyrifera*.
- Secale cereale:** *See* Rye.
- α -Sedoheptitol:** Volemitol, identity (LA FORGE and HUDSON) 1928, 79, 1
- Selenium:** Compounds, toxicity, muscle dehydrogenase, frog and fish (COLLETT, RHEINBERGER, and LITTLE) 1933, 100, 271
- Semiquinones:** Formation from dyestuffs and pyocyanine (MICHAELIS) 1931, 92, 211
- Serine:** Alkaline decomposition (DAFT and COGHILL) 1931, 90, 341
- Iso-, dissociation constants, apparent (EMERSON, KIRK, and SCHMIDT) 1931, 92, 449
- Serinephosphoric acid:** Vitellinic acid hydrolysis, formation (LIPMANN and LEVENE) 1932, 98, 109
- Sex:** Carbohydrate metabolism, effect (BUTTS and DEUEL) 1933, 100, 415
- Cod livers and cod liver oil, effect (HAWK) 1930, 87, xlviii
- Creatine-creatinine transformation, influence (ROSE, ELLIS, and HELMING) 1928, 77, 171

Sex—continued:

Hormone, male, and pituitary, anterior, effect (FUNK and HARROW) 1932, 97, cviii (HARROW, NAIMAN, and FUNK) 1933, 100, lii

—, —, comb growth-stimulating, alkali effect (GALLAGHER and KOCH) 1933, 100, xlvii

—, *See also* Androten, Emmenin, Progestin, Theelin, Theelol.

Ketosis, fasting, variation (DEUEL and GULICK)

1932, 96, 25

Liver glycogen and fat, effect (DEUEL) 1933, 100, xxxv

Vitamin A effect (EVANS) 1928, 77, 651

See also Hen-feathering.

Shaffer-Hartmann: Polysaccharide determination, tuberculin, Hagedorn-Jensen method, comparison (MUNDAY and SEIBERT) 1933, 100, 277

Shock: Electrocardiogram and respiration following adrenalin (LANDIS) 1933, 100, lxi

Silica: Tissues, determination (KING) 1928, 80, 25

—, microdetermination, gravimetric (MORGAN and KING) 1932, 95, 613

Silk: Fibroin, amino acids, basic (VICKERY and BLOCK) 1931, 93, 105

Silver: Hemolytic action, impurity in sodium chloride, chemically pure (BALL) 1932, 97, xciv

Skeleton: Composition (BOOHER and HANSMANN) 1931-32, 94, 195

Skin: Sugar, true, diabetics and non-diabetics (TRIMBLE and CAREY) 1931, 90, 655

See also Integument.

Sleep: Blood sugar, capillary (TRIMBLE and MADDOCK) 1929, 81, 595

Urine, effect (SIMPSON) 1929, 84, 393

Snake: Blood plasma uric acid determination (BORDLEY and RICHARDS) 1932, 97, lxxii

King, metabolism, total, and specific dynamic action of food (KOCHER) 1932, 97, lxxi

Rattlesnake blood (LUCK and KEELER) 1929, 82, 703

Urine, glomerulus, uric acid determination (BORDLEY and RICHARDS) 1932, 97, lxxii

Sodium: Amalgam electrodes, amphoteric substances, solutions, behavior (KIRK and SCHMIDT) 1928, 76, 115

Biological material, determination, acetate method (SALIT) 1932, 96, 659

—, —, uranyl zinc acetate (BUTLER and TUTTILL) 1931, 93, 171

Blood cell, red, permeability, blood serum influence (KERR) 1929-30, 85, 47

— plasma, heparinized, determination, iodometric (ROURKE) 1928, 78, 337

— serum, determination, iodometric (ROURKE) 1928, 78, 337

Cerebrospinal fluid, and blood serum, distribution (DAILEY) 1931, 93, 5

Sodium—continued:

- Determination with potassium
(BROWN and SHOHL) 1931, 91, 745
- Growth effect (ST. JOHN) 1928, 77, 27
- Osmotic coefficient, sodium hemoglobinate (STADIE and SUNDERMAN) 1931, 91, 227
- Sodium acetate:** Blood serum calcium, ultrafiltrability (SHELLING and MASLOW) 1928, 78, 661
- Sodium arsenite:** Hyperglycemia production (UNDERHILL and DIMICK) 1928, 76, 163
- Sodium benzoate:** Dietary, growth effect (GRIFFITH) 1928, 78, xxiv
- Hippuric acid elimination, ingestion effect (DIACK and LEWIS) 1928, 77, 89
- Sodium bromide:** Blood bromides and chlorides, distribution, ingestion effect (VAN DYKE and HASTINGS) 1931, 92, 27
- Edema production (HASTINGS and VAN DYKE) 1928, 78, xxxv
- Sodium chloride:** Bicarbonate, hemoglobin systems, Debye-Hückel theory (STADIE) 1928, 77, 303
- Hemolytic action, silver in chemically pure (BALL) 1932, 97, xciv
- Ingestion effect (WILEY, WILEY, and WALLER) 1932, 97, lvi
- Osmotic coefficient, hemoglobin solution (STADIE and SUNDERMAN) 1931, 91, 227

Sodium citrate: Blood serum calcium, ultrafiltrability (SHELLING and MASLOW) 1928, 78, 661

Sodium fluoride: Scurvy-like symptoms following ingestion (PHILLIPS) 1933, 100, lxxix

Thymol and, urea determination, urease method, influence (OSTERBERG and SCHMIDT) 1928, 76, 749

Sodium formate: Oxidation, catalytic (DEGERING) 1932, 95, 409

Sodium hemoglobinate: Sodium in, osmotic coefficient (STADIE and SUNDERMAN) 1931, 91, 227

Sodium hydroxide: Solutions, concentrated, liquid junction potentials (URBAN) 1930, 87, xix

Sodium lactate: Blood lactate, injection effect (PARFENTJEV, SUNTZEFF, and SOKOLOFF) 1931, 93, 797

—serum calcium, ultrafiltrability (SHELLING and MASLOW) 1928, 78, 661

Sodium nitrite: Cyanide poisoning, action (WENDEL) 1933, 100, c

Sodium phosphate: Phosphorus supplement source, various forms of, comparative effect (TURNER, KANE, and HALE) 1931, 92, xiv

Sodium taurocholate: Lipase, influence (PARFENTJEV, DEVRIENT, and SOKOLOFF) 1931, 92, 33

Soy bean: *See* Bean.

- Specific dynamic action:** (CHAMBERS and LUSK)
 1929-30, 85, 611
- Amino acids, injection effect** (WILHELMJ and BOLLMAN)
 1928, 77, 127
- , proteins, relation (RAPPORT and BEARD)
 1928, 80, 413
- Food, king snake** (KOCHER)
 1932, 97, lxxi
- Glycine, normal and adrenalectomized dogs** (NORD and DEUEL)
 1928, 80, 115
- Hypophysis disturbances, effect** (JOHNSTON)
 1931, 92, xciii
- Meat, hypophysectomy effect** (GAEBLER)
 1929, 81, 41
- Phlorhizin effect** (CHAMBERS and LUSK)
 1929-30, 85, 611
- Protein** (RAPPORT and BEARD)
 1928, 80, 413
- hydrolysates, fractionated (RAPPORT and BEARD)
 1928, 80, 413
- Spectrograph: Vitamin A determination** (BILLS)
 1933, 100, xv
- Spinach:** Fat, composition (SPEER, WISE, and HART)
 1929, 82, 105
- , unsaponifiable fraction (HEYL, WISE, and SPEER)
 1929, 82, 111
- Inorganic elements, anemia, nutritional** (MITCHELL and MILLER)
 1929-30, 85, 355
- Spinasterol:** (HART and HEYL)
 1932, 95, 311
- Spinasterol esters:** (HART and HEYL)
 1932, 95, 311
- Spleen: Calcium metabolism, relation** (UNDERHILL and GROSS)
 1929, 81, 163
- Chemical studies** (RAY and ISAAC)
 1929-30, 85, 549
- Cholesterol metabolism, relation** (RANDLES and KNUDSON)
 1928, 76, 89
- Lipids, arachidonic acid** (BROWN)
 1929, 83, 777
- Splenectomy: Hemoglobin, colorless** (RAY and ISAAC)
 1929-30, 85, 549
- Squalus sucklii:** See Dogfish.
- Stannous chloride: Molybdic acid-, reagent, phosphorus determination** (KUTTNER and LICHTENSTEIN)
 1930, 86, 671
- Starch: Hydrolysis, light effect** (NAVEZ and RUBENSTEIN)
 1932, 95, 645
- , polarized light effect (BUNKER and ANDERSON)
 1928, 77, 473
- (NAVEZ and RUBENSTEIN)
 1928, 80, 503
- Iodine reaction** (FIELD)
 1931, 92, 413
- Starfish: Eggs, oxygen consumption, methylene blue effect** (BARRON)
 1929, 81, 445
- Statistics: Growth, interpretation** (SHERMAN and CAMPBELL)
 1932, 97, iii
- Vitamin feeding experiments, measured variables, per cent effect** (IRWIN, BRANDT, and NELSON)
 1930, 88, 449
- — —, number of animals (IRWIN, BRANDT, and NELSON)
 1930, 88, 461

- Stearic acid:** Dihydroxy-, free, *Lactobacillus acidophilus* fat (CROWDER and ANDERSON) 1932, 97, 393
- Sterols:** Allophanates (TANGE and McCOLLUM) 1928, 76, 445
- Dietary, blood cholesterol, cyclic variations, women, effect (OKEY and STEWART) 1932, 97, xxxix
- Free, lanolin, ultra-violet irradiation, effect (BERNHARD and DREKTER) 1931, 93, 1
- Mold mycelia (PRUESS, PETERSON, STEENBOCK, and FRED) 1931, 90, 369
- Production, molds (PRUESS) 1930, 87, xliii
- Stomach:** Aluminum compounds, baking powder residues, solubility in (MYERS and KILLIAN) 1928, 78, 591
- Contents, hydrogen ion concentration, calcium citrate and carbonate, effect (RUSSELL and McDONALD) 1930, 87, iv
- Gastric juice acidity and composition, relation (HOLLANDER) 1932, 97, xli
- — —, constant (HOLLANDER and COWGILL) 1931, 91, 151
- — chlorine (HOLLANDER) 1932, 97, 585
- —, parietal, properties (HOLLANDER) 1932, 97, xli
- secretion (HOLLANDER and COWGILL) 1931, 91, 151, 1932, 97, 585
- —, acidity, criteria (HOLLANDER) 1931, 91, 481
- Stomach—continued:**
- Protein evacuation, calcium citrate and carbonate, effect (RUSSELL and McDONALD) 1930, 87, iv
- Ulcer, bile salts and thyroid, relation (SCHMIDT) 1933, 100, lxxxvi
- Strophanthic acid:** Iso-, derivatives, dehydration and lactone cleavage (JACOBS and GUSTUS) 1929, 84, 183
- Strophanthidic acid:** Iso-, desoxo derivative, conversion (JACOBS,* ELDERFIELD, GRAVE, and WIGNALL) 1931, 91, 617
- Strophanthidin:** Aglucones, related, Ring II (JACOBS and GUSTUS) 1931, 92, 323
- , —, — III (JACOBS and ELDERFIELD) 1932, 97, 727
- Allo- (JACOBS) 1930, 88, 519
- Dehydrogenation (JACOBS and FLECK) 1932, 97, 57
- Digitoxigenin, correlation (JACOBS and ELDERFIELD) 1931, 92, 313
- Gitoxigenin, correlation (JACOBS and ELDERFIELD) 1931, 92, 313
- Hexahydrodianhydro-, isomeric, and derivatives (JACOBS, ELDERFIELD, HOFFMANN, and GRAVE) 1931, 93, 127
- Iso-, series, degradation (JACOBS and GUSTUS) 1928, 79, 539
- Isomerization, enzyme (JACOBS) 1930, 88, 519
- Lactone group (JACOBS and ELDERFIELD) 1932, 96, 357

Strophanthidin—*continued*:

Periplogenin, correlation (JACOBS and ELDERFIELD)

1931, 91, 625

Ring II (JACOBS and GUSTUS)

1931, 92, 323

— III (JACOBS and ELDERFIELD)

1932, 97, 727

Strophanthin: (JACOBS and HOFFMANN)

1928, 79, 531

(JACOBS and GUSTUS)

1928, 79, 539

1929, 84, 183

(JACOBS)

1930, 88, 519

(JACOBS, ELDERFIELD,

GRAVE, and WIGNALL)

1931, 91, 617

(JACOBS and ELDERFIELD)

1931, 91, 625

1931, 92, 313

(JACOBS and GUSTUS)

1931, 92, 323

(JACOBS, ELDERFIELD, HOFF-

MANN, and GRAVE)

1931, 93, 127

(JACOBS and ELDERFIELD)

1932, 96, 357

(JACOBS and FLECK)

1932, 97, 57

(JACOBS and ELDERFIELD)

1932, 97, 727

Hispidus (JACOBS and HOFFMANN)

1928, 79, 531

Strophanthus eminii (JACOBS and BIGELOW)

1932-33, 99, 521

g-**Strophanthin**: (JACOBS and BIGELOW)

1932, 96, 647

Strophanthus eminii: **Strophanthins** (JACOBS and BIGELOW)

1932-33, 99, 521

Styracitol: Metabolism rate (FREUDENBERG and FELTON)

1932-33, 99, 657

Succinate: -Enzyme-fumarate equilibrium, enzyme rôle (BORSOOK and SCHOTT)

1931, 92, 535

Succinic acid: Benzyl esters, hippuric acid elimination, ingestion effect (DIACK and LEWIS)

1928, 77, 89

Chloro-, chloropropionic and lactic acids, configurational relationship (LEVENE and HALLER)

1929, 83, 185

Suckling: Blood urea, effect (PARSONS)

1930, 87, xlv

Sucrose: Fat-free diets, as energy source (EVANS and LEPKOVSKY)

1932, 96, 143

-High diet, fat effect (EVANS and LEPKOVSKY)

1931, 92, 615

Hydrolysis, enzymatic, fructose activation (RONZONI)

1930, 87, xxxiii

Ketolytic action, other sugars, comparison (DEUEL, GULICK, and BUTTS)

1932, 98, 333

Sugar(s): Acidic property (URBAN and SHAFFER)

1931-32, 94, 697

(URBAN and WILLIAMS)

1933, 100, 237

Activation by alkali (SHAFFER and FRIEDEMANN)

1930, 86, 345

Biological fluids, determination, iron and thorium precipitation (STEINER, URBAN, and WEST)

1932, 98, 289

— —, Molisch reactions (FOULGER)

1931, 92, 345

Sugar(s)—continued:

- Blood. *See* Blood sugar.
- cell, determination, direct and indirect (SPANNUTH and POWER) 1931, 93, 343
- —, red, insulin effect (TRIMBLE and MADDOCK) 1928, 78, 323
- Borate and, reaction (LEVY) 1928, 78, liii
(LEVY and DOISY) 1929, 84, 749
(LEVY) 1929, 84, 763
- Borax solutions, freezing point lowering (LEVY) 1929, 84, 763
- —, optical activity (LEVY and DOISY) 1929, 84, 749
- Bromoacetyl, preparation (LEVENE and RAYMOND) 1931, 90, 247
- Determination, copper-iodometric reagents (SHAFFER and SOMOGYI) 1933, 100, 695
- Fate, body (CORI and CORI) 1928, 76, 755
- Fermentable, heart and skeletal muscle (CORI and CLOSS) 1933, 100, xxxii
- , urine, determination, gasometric (VAN SLYKE and HAWKINS) 1929, 83, 51
- , —, normal, nature (WEST, NORRIS, and STEINER) 1932, 97, lxxxii
- Formation, fatty acids, pancreatotomy, epinephrine effect (CHAIKOFF and WEBER) 1928, 76, 813
- Free, liver and muscle (POWER and CLAWSON) 1928, 78, lvi

Sugar(s)—continued:

- Free, muscle, adrenalin effect (BISCHOFF and LONG) 1932, 95, 743
- Glucose fermentation, carbon dioxide formation and, disappearance, comparison (HAWKINS and VAN SLYKE) 1929, 84, 243
- d-Glucose-related, oxidation, catalytic (DEGERING and UPSON) 1931-32, 94, 423
- Isomers, mutarotatory, configuration (LEVY and DOISY) 1929, 84, 749
- Lactic acid formation, alkali action (SHAFFER and FRIEDEMANN) 1930, 86, 345
- Metabolism (BLANCO) 1928, 79, 667
- Muscle, adrenalin effect (BISCHOFF and LONG) 1930, 87, 47
- Non-glucose, blood plasma (HUBBARD and DEEGAN) 1928, 78, lvii
- Non-, reducing, blood, vitamin B deficiency influence (SURE and SMITH) 1929, 84, 727
- , — substances, blood and urine (BENEDICT and NEWTON) 1929, 83, 361
- Oxidation, alkaline solution, cyanide (HARNED and DEERE) 1932, 97, lxxxii
- , borate effect (LEVY and DOISY) 1928, 77, 733
- induced by, barium peroxide formation (SHAFFER and HARNED) 1931, 93, 311
- Pentosuria, nature (GREENWALD) 1930, 88, 1
1930, 89, 501

Sugar(s)—continued:

- Peroxidation, methylene blue action (HARNED) 1928, 78, lii
- Plant extracts, determination (PHILLIPS) 1932, 95, 735
- Rare, fermentation by colon bacteria and *aerogenes* (POE and FIELD) 1932-33, 99, 283
- , reducing equivalents, determination, colorimetric (POE and KLEMMER) 1930, 87, 7
- Reducing, blood and urine, determination, gasometric (VAN SLYKE and HAWKINS) 1928, 79, 739
- , — — —, determination, micro time method (HAWKINS) 1929, 84, 69
- , — — —, determination, time method (HAWKINS and VAN SLYKE) 1929, 81, 459
- powers, ferricyanide reagent, determination, gasometric (HAWKINS) 1929, 84, 79
- rate, determination, potentiometric (ARITAMA and SHAFFER) 1928, 78, li
- Saccharinic acid formation, alkali action (SHAFFER and FRIEDEMANN) 1930, 86, 345
- Sarmentocymarin (JACOBS and BIGELOW) 1932, 96, 355
- Separation, yeast (RAYMOND and BLANCO) 1928, 79, 649 1928, 80, 631
- Solution, lactic acid determination (FRIEDEMANN) 1928, 76, 75

Sugar(s)—continued:

- Total, urine (EVERETT and SHEPPARD) 1928, 80, 255 (EVERETT) 1930, 87, 761
- True, skin and muscle, diabetics and non-diabetics (TRIMBLE and CAREY) 1931, 90, 655
- Urine, galactose ingestion effect (HARDING and VAN NOSTRAND) 1929-30, 85, 765
- , normal (EVERETT and SHEPPARD) 1930, 87, xxxv
- , —, nature (EVERETT and SHEPPARD) 1932, 96, 431
- Sulfate(s): Biological material, microdetermination, iodometric (MORGULIS and HEMPHILL) 1932, 96, 573
- Conjugated, biological fluids, determination (WAKEFIELD and POWER) 1930, 87, xv
- Inorganic, biological fluids, determination (WAKEFIELD and POWER) 1930, 87, xv
- , blood serum, determination (HUBBARD) 1930, 88, 663
- , — — —, colorimetric (WAKEFIELD) 1929, 81, 713
- , body fluids, determination, colorimetric (WAKEFIELD) 1929, 81, 713
- , urine, determination, colorimetric (KAHN and LEIBOFF) 1928, 80, 623 (WAKEFIELD) 1929, 81, 713
- Total, body fluids, determination, colorimetric (WAKEFIELD) 1929, 81, 713

Sulfate(s)—*continued*:

Urine, microdetermination
(HOFFMAN) 1931, 93, 787

Sulphydryl: Compounds, oxidation-reduction potentials
(WILLIAMS and DRISSEN)

1930, 87, 441

(FISCHER) 1930, 89, 753

—, *Podarke obscura*, regeneration rate, effect (MORGULIS and GREEN) 1931, 92, xcv

Sulfite: Cystine, action upon
(CLARKE) 1932, 97, 235

Sulfonic acid(s): Methyl-, protein oxidation product (VARS)

1933, 100, xciii

Thiol acids and, from dithio acids (PREISLER and PREISLER) 1930, 89, 631

— — —, — dithio acids, mercuric salts action (PREISLER and PREISLER) 1932, 95, 181

— — —, production, simultaneous, from dithio acids by mercuric bromide and metallic salts (PREISLER)

1931, 92, xxxvi

Sulfur: Blood, metabolic diseases
(KOEHLER) 1928, 78, lxx

Colloidal, liver oxidations, action (BERNHEIM and BERNHEIM) 1932, 96, 331

Compounds, absorption, intestinal loop (ANDREWS and JOHNSTON) 1933, 100, vii

—Containing amino acid, Mueller (BARGER and COYNE)

1928, 78, iii

Lability, cysteine and derivatives (NICOLET)

1932, 95, 389

Sulfur—*continued*:

Metabolism (LEWIS and LOUGH)
1929, 81, 285

(LIGHTBODY and LEWIS)
1929, 82, 485, 663

(STEARNS and LEWIS)
1930, 86, 93

(LOUGH and LEWIS)
1931–32, 94, 739

(WHITE and LEWIS)
1932, 98, 607

—, ethyl isothiocyanate, ethyl thiocyanate, and allyl isothiocyanate, influence (SANDBERG and HOLLY)

1932, 97, 31

—, fasting (MORGULIS)
1928, 77, 627

—, pyrimidines, effect (STEKOL and CERECEDO)
1931, 93, 275

Organic compounds, soluble, color reaction (GROTE)
1931, 93, 25

Partition, urine, fasting (MORGULIS) 1928, 77, 627

Plants, determination, Benedict-Denis method (FREAR)
1930, 86, 285

Proteins (GORTNER and SINCLAIR) 1929, 83, 681
(THOR and GORTNER)

1932–33, 99, 383

—, distribution (BAERNSTEIN)
1932, 97, xxv, 669

Urine, distribution, monobromobenzene effect (LOUGH and LEWIS)

1931–32, 94, 739

—, monobromobenzene ingestion, dietary protein, *l*-cystine, and *dl*-methionine, effect (WHITE and LEWIS)

1932, 98, 607

- Sulfur dioxide:** Fruit, antiscorbutic effect (MORGAN and FIELD) 1929, 82, 579
 — vitamin A, effect (MORGAN and FIELD) 1930, 88, 9
- Sunlight:** Cow exposed to, milk antirachitic value (STEENBOCK, HART, RIISING, HOPPERT, BASHEV, and HUMPHREY) 1930, 87, 103
- Hay, varying exposure to, calcium metabolism, milking cows (HART, STEENBOCK, TEUT, and HUMPHREY) 1929, 84, 367
- Urease inactivation (TAUBER) 1930, 87, 625
- Winter, bone formation, effect (RUSSELL and HOWARD) 1931, 91, 493
- Suprarenal:** Active constituents, chemistry (KENDALL) 1931, 92, lvi
 — principle essential to life (KENDALL, MASON, McKENZIE, and MYERS) 1933, 100, lix
- Chemistry (KENDALL) 1932, 97, iv
- Cholesterol metabolism, relation (RANDLES and KNUDSON) 1928, 76, 89
- Epinephrine-lipid combination (KOEHLER and EICHELBERGER) 1930, 87, xxxviii
- Lipids, arachidonic acid (BROWN) 1929, 83, 777
- See also* Adrenal.
- Sweat:** *See* Perspiration.
- Sweet potato:** Ipomoein (JONES and GERSDORFF) 1931, 93, 119
- Synovial fluid:** Joint effusion (CAJORI and PEMBERTON) 1928, 76, 471
- Synthalin:** Glukhorment, similarity (BISCHOFF, BLATHERWICK, and SAHYUN) 1928, 77, 467
- Respiratory quotient, effect (KARR, PETTY, and SCHUMANN) 1928, 78, xli
- Taka-diastrase:** Glycogen hydrolysis (SAHYUN and ALSBERG) 1931, 93, 235
- Tartaric acid:** Fate, body (FINKLE) 1933, 100, 349
- Taurine:** Glycyl-, synthesis (WHITE) 1933, 100, civ
- Teleost:** Tissues, phosphatase (BODANSKY, BAKWIN, and BAKWIN) 1931-32, 94, 551
- Tellurium:** Compounds, toxicity, muscle dehydrogenase, frog and fish (COLLETT, RHEINBERGER, and LITTLE) 1933, 100, 271
- Temperature:** Catalase reaction (MORGULIS and BEBER) 1928, 77, 115
- Gastrointestinal (EBERHARD, RICKETTS, RIEGER, and HEPBURN) 1931, 92, lxxxviii
- (HEPBURN, EBERHARD, RICKETTS, and RIEGER) 1932, 97, xliii
- Muscular activity and (DILL and EDWARDS) 1931, 92, lxxxvii
- Testicle:** Hormone (GALLAGHER and KOCH) 1929, 84, 495
 — assay (GALLAGHER and KOCH) 1933, 100, xlviii

Testicle—continued:

Hormone, urine (GALLAGHER and KOCH)

1933, 100, xlviii

Testis: Cholesterol metabolism, relation (RANGLES and KNUDSON) 1929, 82, 57

Tetanus: Toxin, muscle contraction, phosphorus, nitrogen, and fat, effect (DAVENPORT, DAVENPORT, and RANSON) 1930, 87, 295

—, — glycogen, shortening, effect (DAVENPORT, DAVENPORT, and RANSON)

1929, 82, 499

Tetany: Acid-base equilibrium (SHOHL, BROWN, ROSE, SMITH, and COZAD)

1931, 92, x

Blood acid-base equilibrium (SHOHL, BROWN, ROSE, SMITH, and COZAD)

1931, 92, 711

Brain calcium and phosphorus (HESS, GROSS, WEINSTOCK, and BERLINER)

1932, 98, 625

Dietary acid-base, cause (SHOHL, BROWN, CHAPMAN, ROSE, and SAURWEIN)

1932, 98, 215

Fasting, rickets (WILDER)

1929, 81, 65

(SHOHL and BROWN)

1929, 84, 501

Parathyroid, muscle calcium (DIXON, DAVENPORT, and RANSON) 1929, 83, 737

—, — phosphorus, acid-soluble compounds (DAVENPORT, DIXON, and RANSON)

1929, 83, 741

Tetany—continued:

Parathyroidectomy, ammonium chloride, prevention effect (GREENWALD)

1929, 82, 717

—, cod liver oil effect (GREENWALD and GROSS)

1929, 82, 505

—, diet and viosterol effect (SHELLING) 1932, 96, 215

—, dietary calcium and phosphorus, effect (SHELLING)

1932, 96, 195

—, lactose, prevention effect (GREENWALD and GROSS)

1929, 82, 531

—, prevention (GREENWALD and GROSS)

1929, 82, 505, 531

(GREENWALD)

1929, 82, 717

Phosphate, rickets (SHOHL and BROWN) 1929, 84, 501

Rickets, normal diet (HESS, WEINSTOCK, BENJAMIN, and GROSS) 1931, 90, 737

Thyroparathyroidectomy, cod liver oil effect (GREENWALD and GROSS) 1928, 78, lxviii

Tetraacetyl-methylmannoside:

Hydrolysis rate (LEVENE and WOLFROM)

1928, 79, 471

Tetracosanic acid: Peanut oil (TAYLOR) 1931, 91, 541

Tetramethyl- γ -methylmannoside: Chemical constitution (LEVENE and MEYER)

1928, 76, 809

Thallium: Yeast growth effect (RICHARDS) 1932, 96, 405

Theelin: Crystallography (SLAWSON) 1930, 87, 373

Theelin—continued:

- Derivatives, oxygen equivalents (LEVIN, MACCORQUODALE, THAYER, and DOISY) 1933, 100, lxii
- Liquor folliculi extracts, comparison (CURTIS) 1932, 97, liv
- Oxygen equivalents (LEVIN, MACCORQUODALE, THAYER, and DOISY) 1933, 100, lxii
- Preparation (VELER, THAYER, and DOISY) 1930, 87, 357 (CURTIS) 1933, 100, xxxiii
- Properties (THAYER, LEVIN, and DOISY) 1931, 91, 791
- Theelol:** Bioassay (CURTIS and DOISY) 1931, 91, 647 (THAYER and MACCORQUODALE) 1932, 97, liii
- Blood pressure effect (MELCHIONNA) 1931, 91, 653
- Characterization (THAYER, LEVIN, and DOISY) 1931, 91, 655
- Chemical constitution (MACCORQUODALE, THAYER, and DOISY) 1932-33, 99, 327
- Crystallography (SLAWSON) 1931, 91, 667
- Derivatives, oxygen equivalents (LEVIN, MACCORQUODALE, THAYER, and DOISY) 1933, 100, lxii
- Heart effect (MELCHIONNA) 1931, 91, 653
- Liquor folliculi extracts, comparison (CURTIS) 1932, 97, liv
- Oxygen equivalents (LEVIN, MACCORQUODALE, THAYER, and DOISY) 1933, 100, lxii

Theelol—continued:

- Preparation (DOISY and THAYER) 1931, 91, 641 (THAYER and MACCORQUODALE) 1932, 97, liii
- Purification (MACCORQUODALE, THAYER, and DOISY) 1932-33, 99, 327
- Respiration effect (MELCHIONNA) 1931, 91, 653
- Theophylline - d - glucodesoside:** (LEVENE and CORTESI) 1931, 92, 53
- Thiocyanate:** Urine, determination (SULLIVAN) 1933, 100, xci
- Thiohydantoin:** Cystine and cysteine (NICOLET) 1930, 88, 395
- Derivatives, cystine and cysteine, alkali action (NICOLET) 1930, 88, 403
- Optically active, preparation (CSONKA and NICOLET) 1932-33, 99, 213
- 2-Thiohydantoin:** Preparation, thiocyanate method (NICOLET) 1932-33, 99, 429
- Thiol acids:** Sulfonic acids and, from dithio acids (PREISLER and PREISLER) 1930, 89, 631
- — —, dithio acids, mercuric salts action (PREISLER and PREISLER) 1932, 95, 181
- — —, production, simultaneous, from dithio acids by mercuric bromide and metallic salts (PREISLER) 1931, 92, xxxvi
- Thioneine:** Blood (BENEDICT and NEWTON) 1929, 83, 361

Thioneine—*continued*:

Blood, determination and occurrence (BEHRE and BENEDICT) 1929, 82, 11

See also Ergothioneine.

Thiopyruvic acid: Derivatives, cystine-deficient diet (BLOCK and JACKSON)

1931, 92, xci

Thiovaleric acid: 3- and 4-, oxidation, Walden inversion, relation (LEVENE and MORI)

1928, 78, 1

Thiry-Vella: Fistula, fat excretion (ANGEVINE)

1929, 82, 559

Thorium: Sugar determination, biological fluids, precipitation (STEINER, URBAN, and WEST)

1932, 98, 289

Thymine: Ribodexose and xylohexose, structure relation (LEVENE and MORI)

1929, 83, 803

Thymol: Sodium fluoride and, urea determination, urease method, influence (OSTERBERG and SCHMIDT)

1928, 76, 749

Thymonucleic acid: Carbohydrate (LEVENE, MIKESKA, and MORI)

1929-30, 85, 785

Chemical constitution (LEVENE and LONDON)

1929, 83, 793

Ribopolynucleotides, separation (LEVENE and JORPES)

1930, 86, 389

Thymus: Nucleic acid, guanine-desoxypentose from (LEVENE and LONDON)

1929, 81, 711

Thyroglobulin: Preparation (CAVETT and SELJESKOG)

1933, 100, xxvi

Thyroid: Activity, gastric ulcers and bile salts, relation (SCHMIDT) 1933, 100, lxxxvi

Cyanide metabolism and (BAUMANN, SPRINSON, and METZGER) 1933, 100, xiii

Desiccated, calcium excretion, normal and hypophysectomized rat, feeding effect (PUGSLEY) 1933, 100, lxxxi

3, 5-Diiodotyrosine, isolation (FOSTER) 1929, 83, 345

Enlargement, blood hemoglobin (REMINGTON)

1931, 92, lxxix

Hyperplastic, calcium and phosphorus metabolism, vitamin B and iodine influence (SANDBERG and HOLLY)

1932-33, 99, 547

Iodine, iodine administration effect (GUTMAN, BENEDICT, BAXTER, and PALMER)

1932, 97, 303

—, iodized milk and potassium iodide effect (KRAUSS and MONROE)

1930, 89, 581

—, pituitary, anterior, acid extract, effect (CLOSS, LOEB, and MACKAY)

1932, 96, 585

—, —, —, substances, influence (SCHOCKAERT and FOSTER) 1932, 95, 89

—, seasonal variations (KENDALL and SIMONSEN)

1928, 80, 357

Lipids, arachidonic acid (BROWN) 1929, 83, 777

Thyroid—continued:

Size, iodized milk and potassium iodide effect (KRAUSS and MONROE)

1930, 89, 581

Thyroxine determination (LELAND and FOSTER)

1932, 95, 165

—, iodine administration effect (GUTMAN, BENEDICT, BAXTER, and PALMER)

1932, 97, 303

—, seasonal variations (KENDALL and SIMONSEN)

1928, 80, 357

Thyroidectomy: Phlorhizin glycosuria, metabolism effect (DANN, CHAMBERS, and LUSK)

1931-32, 94, 511

Thyroparathyroidectomy: Ergosterol, irradiated, effect (JONES, RAPOPORT, and HODES)

1930, 86, 267

Tetany, cod liver oil effect (GREENWALD and GROSS)

1928, 78, lxviii

Thyrotropic hormone: Physiology (ANDERSON)

1933, 100, iv

Thyroxine: Bile salts and, relationship (TASHIRO and SCHMIDT)

1931, 92, lviii

Muscle, gastrocnemius and cardiac, autolyzing, phosphorus and carbohydrate metabolism, effect (BUELL, STRAUSS, and ANDRUS)

1932, 98, 645

Respiratory and nitrogen metabolism, prolonged nitrogen-free diet, effect (DEUEL, SANDIFORD, SANDIFORD, and BOOTHBY)

1928, 76, 407

Thyroxine—continued:

Thyroid, determination (LELAND and FOSTER)

1932, 95, 165

—, iodine administration effect (GUTMAN, BENEDICT, BAXTER, and PALMER)

1932, 97, 303

—, seasonal variations (KENDALL and SIMONSEN)

1928, 80, 357

Tissue, adipose, effect (REED, ANDERSON, and MENDEL)

1932, 96, 313

Tibia: Calcification, new-born (BOOHER and HANSMANN)

1931-32, 94, 195

Calcium-phosphorus ratio, growing chick (HOLMES, PIGOTT, and CAMPBELL)

1931, 92, 187

Tigogenin: Digitalis (JACOBS and FLECK)

1930, 88, 545

Tilletia levis: See Wheat smut.

Timothy bacillus: Chemistry (COGHILL and BIRD)

1929, 81, 115

Fat, acetone-soluble (PANGBORN, CHARGAFF, and ANDERSON)

1932, 98, 43

Lipid fractions, separation (CHARGAFF, PANGBORN, and ANDERSON)

1931, 90, 45

Lipids (PANGBORN and ANDERSON)

1931, 92, xxxii

Nucleic acid (COGHILL)

1931, 90, 57

Phosphatide fraction (PANGBORN and ANDERSON)

1931-32, 94, 465

Tissue: (*See note on p. 173*)

Adipose, character and distribution (REED, YAMAGUCHI, ANDERSON, and MENDEL) 1930, 87, 147
(REED, ANDERSON, and MENDEL) 1932, 96, 313

—, ovariectomy and thyroxine feeding, effect (REED, ANDERSON, and MENDEL) 1932, 96, 313

Calcification, Roentgen ray and microscopic investigation by (TAYLOR and SHEARD) 1929, 81, 479

Human, electrical conductivity, alternating currents (HEMINGWAY and McCLENDON) 1932, 97, xcix

Metabolism (SHORR, LOEBEL, and RICHARDSON) 1930, 86, 529

(RICHARDSON, SHORR, and LOEBEL) 1930, 86, 551

Toad: Poison, chemistry (JENSEN and CHEN) 1930, 87, xxxi, 741, 755
1932, 97, cx
(JENSEN, CHEN, and CHEN) 1933, 100, lvii

Tropical, secretion (JENSEN and CHEN). 1930, 87, 755

Venom, Chinese, ch'an su (JENSEN and CHEN) 1930, 87, 741

—, —, chemical composition (JENSEN and CHEN) 1929, 82, 397

—, —, epinephrine isolation from (JENSEN and CHEN) 1929, 82, 397

Tobacco: Amide nitrogen determination, permutit (VICKERY and PUCHER) 1929, 83, 1

Ammonia determination, permutit (VICKERY and PUCHER) 1929, 83, 1

Leaves, green, organic acids, non-volatile (VICKERY and PUCHER) 1931, 90, 637

Nicotine, free, determination (VICKERY and PUCHER) 1929, 84, 233

Tomato: Vitamins, ripening effect (HOUSE, NELSON, and HABER) 1929, 81, 495

Tooth: Inorganic salts, ration low in, effect (ARNIM, CLARKE, ANDERSON, and SMITH) 1933, 100, viii

Pregnancy relation (MULL and KINNEY) 1933, 100, lxxiii

Roentgen ray analysis (ROSEBERRY, HASTINGS, and MORSE) 1931, 90, 395

Vitamin D effect (TEMPLIN and STEENBOCK) 1933, 100, 217

Transudate: Electrolyte distribution, blood serum and (GREENE, BOLLMAN, KEITH, and WAKEFIELD) 1931, 91, 203

Trehalose: Fermentation, colon and *aerogenes* bacteria (POE and FIELD) 1932-33, 99, 283

Identification, tubercle bacillus (ANDERSON and NEWMAN) 1933, 100, iv

Triacetylmethyllyxoside: Hydrolysis rate (LEVENE and WOLFROM) 1928, 79, 471

Isomers (LEVENE and WOLFROM) 1928, 78, 525

Subjects

- Triacetyl - 1 - methyl - d - ribosides:** Isomeric (LEVENE and TIPSON) 1931, 92, 109
- Tribolium confusum:** See Flour beetle.
- Tributylin:** Metabolism (DAVIS) 1930, 88, 67
- Tricaprin:** Metabolism (POWELL) 1932, 95, 43
- Tricaproin:** Body fat, ingestion influence (ECKSTEIN) 1929, 84, 353
- Tricaprylin:** Metabolism (POWELL) 1930, 89, 547
- Trichloroacetic acid:** Filtrates, nitrogen and phosphorus determination, source of error (KAY) 1931, 93, 727
- Trilaurin:** Metabolism (POWELL) 1930, 89, 547
- Trimethylamine:** Metabolism (LANGLEY) 1929, 84, 561
Wheat smut, isolation (HANNA, VICKERY, and PUCHER) 1932, 97, 351
- Trimethylamine oxide:** Urine, goosfish (GROLLMAN) 1929, 81, 267
- Trimethyl - α - glutarobetaine:** (DAKIN and WEST) 1929, 83, 773
- Triose:** Alkali, weak, effect (SPOEHR and STRAIN) 1930, 89, 503
Methylglyoxal, conversion, amine effect (STRAIN and SPOEHR) 1930, 89, 527
- Tropeolin OO:** Urine organic acids, titration, fading (MCCLUSKEY) 1931, 90, 197
- Trout:** Brook, nutritional requirement (MCCAY) 1930, 87, v
- Trypsin:** Anti-, insulin protection (HARNED and NASH) 1932, 97, li
Casein, action (VAHLTEICH) 1929, 82, 737
Urease inactivation (TAUBER) 1930, 87, 625
- Trypsinogen:** -Enterokinase system (BATES) 1931, 92, lxxvii
- Tryptophane:** Acetyl-*l*-, racemization (DU VIGNEAUD and SEALOCK) 1932, 96, 511
Bile salt metabolism effect (WHIPPLE and SMITH) 1930, 89, 705
— — output, influence (WHIPPLE and SMITH) 1928, 80, 685
Blood, determination, spectrophotometric (CARY) 1928, 78, lxxv
Body weight, corn-meal protein, supplement, effect (CARY and HUFNAGEL) 1932, 97, xxxii
-Deficient diet, indole derivatives (JACKSON) 1929, 84, 1
— —, — —, supplement (BAUGUESS and BERG) 1933, 100, xii
— —, 3-indolepropionic and 3-indolepyruvic acids as supplement, growth on (BERG, ROSE, and MARVEL) 1929-30, 85, 219
— —, kynurenine supplement (JACKSON and JACKSON) 1932, 96, 697
— —, tryptophane derivatives as supplement, growth on (BERG, ROSE, and MARVEL) 1929-30, 85, 207

Tryptophane—continued:

- Deficient diet, tryptophane supplement, growth on (BERG and ROSE) 1929, 82, 479
- Derivatives, absorption rate, gastrointestinal tract (BERG and BAUGUESS) 1932, 98, 171
- , kynurenic acid production (BERG) 1930, 87, x
1931, 91, 513
- Dissociation constants, apparent (SCHMIDT, APPLEMAN, and KIRK) 1929-30, 85, 137
- Egg, developing (CALVERY) 1930, 87, 691
- Free, blood, determination, colorimetric (CARY) 1928, 78, 377
- , —, milk secretion, relation (CARY and MEIGS) 1928, 78, 399
- Glutelins (CSONKA) 1932, 97, 281
- Growth and (BERG and ROSE) 1929, 82, 479
(BERG, ROSE, and MARVEL) 1929-30, 85, 207, 219
- Metabolism (JACKSON) 1928, 78, lxvi
(BERG) 1931, 91, 513
(BERG and POTGIETER) 1931-32, 94, 661
(JACKSON and JACKSON) 1932, 96, 697
(BERG and BAUGUESS) 1932, 98, 171
- Protein, determination (FOLIN and MARENZI) 1929, 83, 89

Tryptophane—continued:

- Proteins, determination, vanillin-hydrochloric acid reaction (RAGINS) 1928, 80, 543
- , liberation, enzymes (RAGINS) 1928, 80, 551
- d*-Tryptophane: Acetyl-, animal body, availability (DU VIGNEAUD, SEALOCK, and VAN ETEN) 1932, 98, 565
- Animal body, availability (DU VIGNEAUD, SEALOCK, and VAN ETEN) 1932, 98, 565
- dl*-Tryptophane: Absorption rate, gastrointestinal tract (BERG and BAUGUESS) 1932, 98, 171
- Derivatives, absorption rate, gastrointestinal tract (BERG and BAUGUESS) 1932, 98, 171
- Growth-promoting ability (BERG and POTGIETER) 1931-32, 94, 661
- Resolution (BERG) 1933, 100, 79
- l*-Tryptophane: Absorption rate, gastrointestinal tract (BERG and BAUGUESS) 1932, 98, 171
- Derivatives, absorption rate, gastrointestinal tract (BERG and BAUGUESS) 1932, 98, 171
- Tryptophol:** Synthesis (JACKSON) 1930, 88, 659
- Tubercle bacillus:** Avian, defatted residue (RENFREW) 1929, 83, 569
- , inosite and mannose in phosphatide fraction (ANDERSON and ROBERTS) 1930, 89, 611

Tubercle bacillus—continued:

Avian, lipid fractions, separation
(ANDERSON and ROBERTS)

1929-30, 85, 509

—, phosphatide fraction (AN-
DERSON and ROBERTS)

1929-30, 85, 519

Bovine, fat, acetone-soluble
(BURT and ANDERSON)

1931-32, 94, 451

—, inosite and mannose in
phosphatide fraction (AN-
DERSON and ROBERTS)

1930, 89, 611

—, lipid fractions, separation
(ANDERSON and ROBERTS)

1929-30, 85, 529

—, phosphatide fraction (AN-
DERSON and ROBERTS)

1930, 89, 599

Chemistry (COOPER)

1930, 88, 485, 493

Culture medium, *d*-mannose
and *d*-arabinose in carbohy-
drate of (RENFREW)

1930, 89, 619

Fat, acetone-soluble (ANDER-
SON and CHARGAFF)

1929, 84, 703

—, —, tuberculostearic and
phthioic acids (ANDERSON
and CHARGAFF)

1929-30, 85, 77

Human, inosite and mannose
in phosphatide fraction (AN-
DERSON and ROBERTS)

1930, 89, 611

—, phthioic acid fraction, levo-
rotatory acid in (ANDERSON)

1932, 97, 639

Lipids, ether-soluble, carbohy-
drates (ANDERSON and ROB-
ERTS)

1930, 87, xvii

Tubercle bacillus—continued:

Phthioic acid, preparation and
properties (ANDERSON)

1929, 83, 169

Trehalose in acetone-soluble
fat (ANDERSON and NEW-
MAN)

1933, 100, iv

Wax (ANDERSON)

1929, 83, 505

—, carbohydrates (ROBERTS
and ANDERSON)

1931, 90, 33

—, soft (ANDERSON)

1929-30, 85, 327

—, unsaponifiable (ANDERSON)

1929-30, 85, 339

—, —, hexacosanic acid (AN-
DERSON)

1929-30, 85, 351

See also *Bacillus Calmette-
Guérin.*

Tuberculin(s): Active principle
(SEIBERT)

1928, 78, 345

Amino acid (SEIBERT and
MUNDAY)

1931, 92, lxvii

Determination, chemical (SEI-
BERT)

1928, 78, lxxi, 345

Electrodialysis (SEIBERT and
HANKS)

1928, 76, 535

Nitrogen (SEIBERT and MUN-
DAY)

1931, 92, lxvii

Polysaccharide determination,
Shaffer-Hartmann and

Hagedorn-Jensen methods,

comparison (MUNDAY and

SEIBERT)

1933, 100, 277

Preparation (SEIBERT)

1928, 78, lxxi, 345

Protein, fractionation (SEI-
BERT and MUNDAY)

1930, 87, xvii

Tuberculosis: Cystinuria (LEWIS
and O'CONNOR)

1930, 87, lvii

- Tuberculostearic acid:** Tubercle bacillus, fat, acetone-soluble (ANDERSON and CHARGAFF) 1929-30, 85, 77
- Tumor:** Malignant, glycolysis, pancreatic inhibitor effect (BARR, RONZONI, and GLASER) 1928, 80, 331
- Tungstic acid:** Filtrates, blood sugar, combined (SCHARLES and WEST) 1931, 93, 359
- Tungstomolybdic acid:** Blood proteins, precipitant (BENEDICT and NEWTON) 1929, 83, 357
- Turtle:** Blood phosphorus, blood sugar, and hemoglobin, distribution (McCAY) 1931, 90, 497
- Typhoid bacillus:** Immunology (HEIDELBERGER, SHWARTZMAN, and COHN) 1928, 78, lxxvi
- Tyramine:** Blood composition, administration effect (HANK and KOESSLER) 1928, 80, 499
- Oxidase** (BERNHEIM) 1931, 93, 299
- Oxidation, oxidase** (BERNHEIM) 1931, 93, 299
- Tyrosine:** Bile salt output, influence (WHIPPLE and SMITH) 1928, 80, 685
- Blood phenols, ingestion effect (LOONEY) 1933, 100, lxiv
- serum proteins (REINER and SOBOTKA) 1933, 100, 779
- uric acid, ingestion effect, Folin and Benedict methods, comparison (LOONEY) 1933, 100, lxiv
- Tyrosine—continued:**
- Cocoons (SILBERMAN and LEWIS) 1932, 95, 491
- Complex, liberation, peptic proteolysis (TORBET and BRADLEY) 1931, 92, lxxvii
- Compound, reducing, urine, myasthenia gravis (BERGLUND, MEDES, and LOHMANN) 1928, 78, v
- Crystals (ANDREWS) 1929, 83, 353
- Diiodo-, fate, animal organism (FOSTER and GUTMAN) 1930, 87, 289
- , physical constants (DALTON, KIRK, and SCHMIDT) 1930, 88, 589
- 3,5-Diiodo-, thyroid, isolation (FOSTER) 1929, 83, 345
- Egg, developing (CALVERY) 1930, 87, 691
- Glutelins (CSONKA) 1932, 97, 281
- Glycyl-, titration constants (GREENSTEIN) 1932, 95, 465
- Low diet, effect (LIGHTBODY and KENYON) 1928, 80, 149
- Metabolism (SHAMBAUGH, LEWIS, and TOURTELLOTT) 1931, 92, 499
- , error in (MEDES) 1930, 87, xi
- Protein, determination (HANK) 1928, 79, 587 (FOLIN and MARENZI) 1929, 83, 89
- Solutions, Roentgen radiation effect (STENSTRÖM and LOHMANN) 1928, 79, 673

Tyrosine—continued:

Tyrosyl-, titration constants
(GREENSTEIN)

1932, 95, 465

Urine, determination, enzymatic (LICHTMAN and SOBOTKA) 1929-30, 85, 261

Tyrosinephosphoric acid: Synthesis (LEVENE and SCHÖRMÜLLER) 1933, 100, 583

Tyrosyltyrosine: Titration constants (GREENSTEIN)

1932, 95, 465

U

Ultrafiltration: (GREENBERG)

1932, 97, xlv

Electrolytes, alkali caseinate solutions (GREENBERG and GREENBERG)

1931-32, 94, 373

Ultra-violet: Irradiation, sterols, free, lanolin (BERNHARD and DREKTER) 1931, 93, 1

—, vitamin B complex, effect (HOGAN and RICHARDSON)

1933, 100, lv

—, vitamins B and G, yeast, differentiation by (KENNEDY and PALMER) 1929, 83, 493

Light, ergosterol, irradiated, antirachitic potency (KNUDSON and MOORE)

1928, 78, xix

1929, 81, 49

Radiation, calcium balances, negative, antirachitic relationship (STEENBOCK, HART, RIESING, KLETZLIEN, and SCOTT) 1930, 87, 127

—, catalase inactivation (MORGULIS) 1930, 86, 75

Ultra-violet—continued:

Radiation, duration effect (RUSSELL, MASSENGALE, and HOWARD) 1928, 78, xxi

1928, 80, 155

—, urease inactivation (TAUBER) 1930, 87, 625

Rays, dermatitis-preventing vitamin, effect (HOGAN and RICHARDSON) 1932, 97, vii

— vitamin B, effect (HOGAN and HUNTER)

1928, 78, xvii

Unsaturated compounds: Oxidation, ferricyanide as catalyst (WRIGHT, CONANT, and KAMERLING)

1931-32, 94, 411

Unsaturation: Optical activity, effect (LEVENE and HALLER)

1929, 83, 177, 579

Uracil: Metabolism, intermediary (CERECEO)

1930, 88, 695

1931, 93, 269

Nucleoside, metabolism (EMERSON and CERECEO)

1930, 87, 453

Urates: Excretion, bird (DREYER and YOUNG) 1932, 97, lxx

Urea: Blood, determination (LEIBOFF and KAHN)

1929, 83, 347

(CAMPBELL) 1932, 97, xcvi

—, —, distillation method (FOLIN and SVEDEBERG)

1930, 88, 77

—, —, manometric, hypobromite reaction (VAN SLYKE)

1929, 83, 449

—, glucose ingestion effect (MOSENTHAL and BRUGER)

1932, 97, lxxxiii

Urea—continued:

- Blood, pregnancy and lactation, dietary protein effect (PARSONS) 1930, 88, 311
- , suckling effect (PARSONS) 1930, 87, xlv
- , unlaked, microdetermination (FOLIN and SVEDBERG) 1930, 88, 85
- Determination (ALLEN and LUCK) 1929, 82, 693
- , urease method, sodium fluoride and thymol influence (OSTERBERG and SCHMIDT) 1928, 76, 749
- Dixanthidryl, oxidation (LUCK) 1928, 79, 211
- , —, dichromate (ALLEN and LUCK) 1929, 82, 693
- Elimination, glomerulus, frog (WALKER and ELSOM) 1931, 91, 593
- rate, kidney function measure (LEWIS and MATTISON) 1928, 78, lxxvi
- , water relation (GAMBLE, MCKHANN, and BUTLER) 1932, 97, lvii
- Excretion, gills, fish (SMITH) 1929, 81, 727
- Formation, amino acid disappearance, relative rates (KIECH and LUCK) 1931-32, 94, 433
- Glucose determination, formose reaction, effect (LARSON) 1932, 98, 151
- Microdetermination (LUCK) 1928, 79, 211
- Nitrogen, blood, determination, direct Nesslerization (LOONEY) 1930, 87, xxix
1930, 88, 189

Urea—continued:

- Nitrogen metabolism, ingestion effect (MOORE, LAVIETES, WAKEMAN, and PETERS) 1931, 91, 373
- partition, urine, endogenous nitrogen level, ingestion effect (KOCHER and TORBERT) 1932, 95, 427
- Origin, body (RABINOWITCH) 1929, 83, 333
- Tissue, determination (KIECH and LUCK) 1928, 77, 723
- Urease hydrolysis, intermediate products (SUMNER, HAND, and HOLLOWAY) 1931, 91, 333
- Urine, determination (CAMPBELL) 1932, 97, xcvi
- , —, manometric, hypobromite reaction (VAN SLYKE) 1929, 83, 449
- Urease: Activity, oxidation and reduction, rôle (PERLZWEIG) 1933, 100, lxxvii
- Amebocyte, *Limulus*, extraction (LOEB, LORBERBLATT, and FIELD) 1928, 78, 417
- Anti- (KIRK and SUMNER) 1931-32, 94, 21
1932, 97, lxxxvii
- Crystalline (SUMNER and HAND) 1928, 76, 149
- , digestion and inactivation, pepsin and papain (SUMNER, KIRK, and HOWELL) 1932, 98, 543
- , inactivation, ultra-violet radiation, sunlight, and trypsin (TAUBER) 1930, 87, 625
- , isoelectric point (SUMNER and HAND) 1928, 78, xxxiv

Urease—continued:

Crystalline, jack bean meal,
effect (SUMNER and HOLLO-
WAY) 1928, 79, 489

—, toxicity (TAUBER and
KLEINER) 1931, 92, 177

Inactivation (SCHMIDT)
1928, 78, 53

Soy bean (KIRK)
1933, 100, 667

Urea determination, sodium
fluoride and thymol influ-
ence (OSTERBERG and
SCHMIDT) 1928, 76, 749

— hydrolysis, intermediate
products (SUMNER, HAND,
and HOLLOWAY)
1931, 91, 333

Urethane: Blood cholesterol, ef-
fect (GRAY) 1930, 87, 591

Uric acid(s): Blood, determina-
tion (FOLIN) 1930, 86, 179

—, — and distribution (BENE-
DICT and BEHRE)
1931, 92, 161

— plasma, determination, frog
and snake (BORDLEY and
RICHARDS) 1932, 97, lxxii

—, tyrosine ingestion effect
(LOONEY) 1933, 100, lxiv

—, unlaked, microdetermina-
tion (FOLIN and SVEDBERG)
1930, 88, 85

Colloidal (YOUNG and MUS-
GRAVE) 1930, 87, xvi

Determination, avian excre-
ment (ST. JOHN and JOHN-
SON) 1931, 92, 41

Egg, developing (CALVERY)
1930, 87, 691

Endogenous, excretion, glycine
ingestion effect (CHRIST-
MAN and MOSIER)
1929, 83, 11

Uric acid(s)—continued:

Endogenous, hematopoiesis and
(KRAFKA) 1929, 83, 409
1930, 86, 223

—, hemolysis, phenylhydra-
zine hydrochloride, effect
(KRAFKA) 1930, 86, 223

Excretion, bird (DREYER and
YOUNG) 1932, 97, lxx

—, factors influencing (QUICK)
1932, 98, 157

—, methylxanthine influence
(MYERS and WARDELL)
1928, 77, 697

Methyl, excretion, methylated
xanthines, ingestion effect
(HANZAL and MYERS)
1932, 97, lxix

Reagent, phenol-free, prepara-
tion (FOLIN and MARENZI)
1929, 83, 109

Urine, determination (CHRIST-
MAN and RAVWITCH)
1932, 95, 115

—, glomerulus, determination,
frog and snake (BORDLEY and
RICHARDS) 1932, 97, lxxii

Urine: (*See note on p. 173*)

Alkalinity, morning (HUBBARD,
MUNFORD, TYNER, and AL-
LISON) 1931, 92, xxix

Anisotropic substances (TUR-
NER) 1933, 100, xcii

Bromide injection effect (HAST-
INGS, HARKINS, and LIU)
1931-32, 94, 681

Extract, pregnancy, hypophy-
sectomy, effect (WADE,
KATZMAN, and JORGENSEN)
1933, 100, xcvi

Fasting, changes, puppies
(PUCHER) 1928, 76, 319

Fat metabolism hormone
(FUNK) 1933, 100, xliii

Urine—continued:

- Glomerulus, chlorides, frog
(FREEMAN, LIVINGSTON, and
RICHARDS) 1930, 87, 467
- , electrical conductivity, frog
and *Necturus* (BAYLISS and
WALKER) 1930, 87, 523
- , molecular concentration,
total, blood plasma, compari-
son, frog and *Necturus*
(WALKER) 1930, 87, 499
- , reducing substances and
phosphates, frog and *Nec-
turus* (WALKER, ELLINWOOD,
and REISINGER)
1932, 97, lxxii
- , uric acid determination,
frog and snake (BORDLEY and
RICHARDS) 1932, 97, lxxii
- Goosefish (GROLLMAN)
1929, 81, 267
- Ketose, normal (EVERETT and
SHEPPARD) 1931, 92, xxv
- Morning, reaction (HUBBARD)
1929, 84, 191
- Mouse (PARFENTJEV and
PERLZWEIG) 1933, 100, 551
- Organic acids, titration, tro-
peolin OO fading (McCLUS-
KEY) 1931, 90, 197
- Perspiration and (MOSHER)
1932-33, 99, 781
- Pigment, normal, extraction
(DRABKIN) 1930, 88, 433
- , —, properties (DRABKIN)
1930, 88, 443
- Pregnancy, ovarian hormone
preparation (DOISY, VELER,
and THAYER) 1930, 86, 499
- , pituitary-like substance,
anterior (KATZMAN and
DOISY) 1932, 97, lii
1932, 98, 739

Urine—continued:

- Reducing substances (WEST)
1931, 92, xxiv
- , —, nephritis, identification
(HILLER) 1931, 91, 735
- , —, non-sugar (BENEDICT
and NEWTON)
1929, 83, 361
- Sleep effect (SIMPSON)
1929, 84, 393
- Testicular hormone (GAL-
LAGHER and KOCH)
1933, 100, xlviii
- Volume, pituitary, anterior, ex-
tracts, effect (GAEBLER)
1932, 97, li
- Yeast ingestion effect (PIERCE)
1932, 98, 509
- Urobilin: Blood, human, deter-
mination (BLANKENHORN)
1928, 80, 477
- Urolithiasis: Vitamin A defi-
ciency (VAN LEERSUM)
1928, 76, 137
- Ursolic acid: (SANDO)
1931, 90, 477
- Dehydrogenation, partial (JA-
COBS and FLECK)
1931, 92, 487
- Uterus: Mucosa, lipids, varia-
tions (OKEY, BLOOR, and
CORNER) 1930, 86, 307
- Utilization coefficient: Bergeim,
standard methods and, com-
parison (HELLER, BREED-
LOVE, and LIKELY)
1928, 79, 275
- Valeric acid: β -Amino-*n*- (DAKIN)
1932-33, 99, 531
- ω -Hydroxy derivatives, fate,
phlorhizin effect (CORLEY
and MARVEL) 1929, 82, 77

Valeric acid—continued:

2-Hydroxy-, lactic acid, configurational relationships (LEVENE and HALLER)

1928, 77, 555

3-Hydroxy-, lactic acid, configurational relationship (LEVENE and HALLER)

1928, 76, 415

Phenyl-, metabolism (QUICK)

1928, 80, 515

3- and 4-thiol-, oxidation, Walden inversion, relation (LEVENE and MORI)

1928, 78, 1

Valine: Absorption, gastrointestinal tract (CHASE)

1933, 100, xxvii

Dissociation constants (HARRIS)

1929, 84, 179

Hydroxy-, dissociation constants, apparent (CZARNETZKY and SCHMIDT)

1931, 92, 453

Isomers, absorption, gastrointestinal tract (CHASE)

1933, 100, xxvii

Vanillin-hydrochloric acid reaction: Tryptophane determination, proteins (RAGINS)

1928, 80, 543

Van Slyke, Lucius Lincoln: Obituary

1932, 94, preceding p. 329

Vegetable oils: Carotene stability (McDONALD)

1933, 100, lxix

Vegetables: Growth, reproduction, and lactation, effect (ROSE and McCOLLUM)

1928, 78, 535

Vegetarians: Basal metabolism (WAKEHAM and HANSEN)

1932, 97, 155

Venom: Toad, Chinese, ch'an su (JENSEN and CHEN)

1930, 87, 741

— — chemical study (JENSEN and CHEN)

1929, 82, 397

—, —, epinephrine isolation from (JENSEN and CHEN)

1929, 82, 397

See also Poison.

Viosterol: Blood serum calcium, parathyroidectomy, effect (SHELLING)

1932, 96, 215

Bone, effect (MORGAN, KIMMEL, THOMAS, and SAMISCH)

1933, 100, lxxi

Hypercalcemia, blood serum calcium, source (SHELLING)

1932, 96, 229

Rickets, healing effect (KRAMER, SHEAR, and SIEGEL)

1931, 91, 723

Tetany, parathyroidectomy, effect (SHELLING)

1932, 96, 215

Vitamin(s): A, alfalfa, curing effect (RUSSELL)

1929-30, 85, 289

(HARTMAN) 1931, 92, vii

—, —, drying effect (HAUGE and AITKENHEAD)

1931, 93, 657

— and D, differentiation, quantitative (SHERMAN and STIEBELING)

1930, 88, 683

—, antimony trichloride test, substances interfering with (CORBET, GEISINGER, and HOLMES)

1933, 100, 657

—, asparagus (CRIST and DYE)

1929, 81, 525

—, —, light relation (CRIST and DYE)

1931, 91, 127

Vitamin(s)—*continued*:

- A avitaminosis (ELVEHJEM and NEU) 1932, 97, 71
- behavior (QUINN, HARTLEY, and DEROW) 1930, 89, 657
- biological assay, vitamin B complex source (NORRIS and CHURCH) 1930, 89, 589
- , butter fat, mineral oil effect on nutritional economy of (JACKSON) 1931, 92, vii
- , carotene as source (KLINE, SCHULTZE, and HART) 1932, 97, 83
- , — transformation *in vitro* (OLCOTT and McCANN) 1931-32, 94, 185
- , chemistry (CADDY and LUCK) 1930, 86, 743
- , choroidal tissue (SMITH, YUDKIN, KRISS, and ZIMMERMAN) 1931, 92, xcii
- , chromogenic substance, light effect (NORRIS and CHURCH) 1930, 89, 421
- , — — stability, oils (NORRIS and CHURCH) 1930, 89, 589
- , color reaction, antimony trichloride (NORRIS and CHURCH) 1929-30, 85, 477
1930, 87, 139
1930, 89, 421, 589
(DUBIN and HOOPER) 1932, 97, v
- , — test, antimony trichloride (BRODE and MAGILL) 1931, 92, 87
- , crude, adsorption (HOLMES, LAVA, DELFS, and CASSIDY) 1932-33, 99, 417
- deficiency, hematopoietic function (SURE, KIK, and

Vitamin(s)—*continued*:

- A deficiency, kidney epithelium calcification, relation (VAN LEERSUM) 1928, 79, 461
- , —, urolithiasis and (VAN LEERSUM) 1928, 76, 137
- destruction (MARCUS) 1931, 90, 507
- , —, radioactive materials (HOGAN, SHREWSBURY, and BRECKENRIDGE) 1930, 87, xlii
- determination (SHERMAN and BURTIS) 1928, 78, 671
(NELSON and JONES) 1928, 80, 215
- , —, preventive method (NELSON, WALKER, and JONES) 1931, 92, vi
- , —, spectrographic (BILLS) 1933, 100, xv
- , fish oils, biological and colorimetric assays, comparison (NORRIS and DANIELSON) 1929, 83, 469
- , — —, determination (BILLS) 1933, 100, xv
- , fruit, drying and sulfur dioxide effect (MORGAN and FIELD) 1930, 88, 9
- , greenness, association (CRIST and DYE) 1929, 81, 525
1931, 91, 127
- , hays, curing effect (HARTMAN) 1931, 92, vii
- , inadequate, female, effect (EVANS) 1928, 77, 651
- , leaf size, relation (McLAUGHLIN) 1929, 84, 249
- , linoleic acid oxidation, effect (MONAGHAN and

Vitamin(s)—*continued*:

- A, liver lipids, unsaponifiable
(FREYTAG and SMITH) 1933, 100, 319
- , maize, hybrid red (HAUGE)
1930, 86, 161
- , —, inheritance (HAUGE
and TROST) 1928, 80, 107
(HAUGE) 1930, 86, 161
(HAUGE and TROST)
1930, 86, 167
- , —, yellow endosperm, re-
lation (HAUGE and TROST)
1930, 86, 167
- measurement (SHERMAN
and BATCHELDER)
1931, 91, 505
- , oils, hydroquinone effect
(HUSTON, LIGHTBODY, and
BALL) 1928, 79, 507
- , —, stability (NORRIS and
CHURCH) 1930, 89, 589
- , plant, stability (SHERMAN,
QUINN, DAY, and MILLER)
1928, 78, 293
- production, *Corynebacterium*
(SKINNER and GUNDERSON)
1932, 97, 53
- , retina tissue (SMITH, YUD-
KIN, KRISS, and ZIMMER-
MAN) 1931, 92, xcii
- synthesis, bacterial (BAU-
MANN, STEENBOCK, and IN-
GRAHAM) 1933, 100, xiii
- , timothy hay, curing effect
(HARTMAN) 1931, 92, vii
- , tomato, ripening effect
(HOUSE, NELSON, and
HABER) 1929, 81, 495
- , transfer to liver, rate (NEL-
SON, WALKER, and JONES)
1932, 97, vi

Vitamin(s)—*continued*:

- A, xanthophyll as source
(KLINE, SCHULTZE, and
HART) 1932, 97, 83
- Antineuritic, assay method
(BLOCK, COWGILL, and
KLOTZ) 1931-32, 94, 765
- B, fat sparing action
(EVANS and LEPKOVSKY)
1929, 83, 269
- concentrate, potency testing
(FREUDENBERG and CERE-
CEDO) 1931-32, 94, 207
- —, preparation (BLOCK and
COWGILL) 1932, 98, 637
- , concentration with silver
(BLOCK, COWGILL, and
KLOTZ) 1931-32, 94, 765
- , extraction, brewers' yeast
(SEIDELL) 1933, 100, 195
(SMITH) 1933, 100, 225
- , isolation, brewers' yeast
(SEIDELL) 1929, 82, 633
- , —, Jansen-Donath pro-
cedure (WILLIAMS, WATER-
MAN, and GURIN)
1930, 87, 559
- , purification (BLOCK and
COWGILL) 1932, 96, 127
1932, 97, 421
- , solubility (BLOCK, Cow-
GILL, and KLOTZ)
1931-32, 94, 765
- , yeast growth, effect (WIL-
LIAMS and ROEHM)
1930, 87, 581
- B and G, yeast, differentiation
by heat and ultra-violet ir-
radiation (KENNEDY and
PALMER) 1929, 83, 493
- , antineuritic, avitaminosis,
glucose tolerance (LEPKOV-
SKY, WOOD, and EVANS)
1930, 87, 239

Vitamin(s)—continued:

- B assay, coprophagy influence
(GUERRANT and DUTCHER)
1932, 98, 225
- , biological method, nursing
young requirements (SURE,
KIK, and WALKER)
1928, 78, xviii
- , blood, effect (SURE, SMITH,
KIK, and WALKER)
1931, 92, viii
- , calcium metabolism, hyper-
thyroid, influence (SAND-
BERG and HOLLY)
1932-33, 99, 547
- complex (SALMON, GUER-
RANT, and HAYS)
1928, 76, 487
- —, adsorption, fullers' earth,
hydrogen ion concentration
effect (SALMON, GUERRANT,
and HAYS) 1928, 80, 91
- —, corn (HUNT)
1928, 78, 83
- — deficiency, anhydremia
and hematopoiesis, nursing
rats (SURE, KIK, and
WALKER) 1929, 82, 287
- —, milk (SUPPLEE, KAH-
LENBERG, and FLANIGAN)
1931, 93, 705
- —, nitrous acid effect
(SHERMAN and WHITSITT)
1931, 90, 153
- —, rice polishings, differen-
tiation, lactation (SURE)
1928, 80, 297
- — source, third factor, yeast
(WILLIAMS and LEWIS)
1930, 89, 275
- — —, vitamin A biological
assay (NORRIS and CHURCH)
1930, 89, 589

Vitamin(s)—continued:

- B complex, ultra-violet irradi-
ation, effect (HOGAN and RICH-
ARDSON) 1933, 100, lv
- —, wheat (HUNT)
1928, 78, 83
- —, yeast (LEWIS and RY-
MER) 1933, 100, lxiii
- components, concentration
and separation (LEVENE)
1928, 79, 465
- concentrates, growth effect
(SURE) 1932, 97, 133
- concentration (LEVENE)
1928, 79, 465
- , copper supplement, lacta-
tion (SURE) 1928, 80, 289
- deficiency, anhydremia and
hematopoiesis, nursing young
(SURE, KIK, and WALKER)
1928, 78, xviii
- —, blood serum calcium,
proteins, and inorganic phos-
phorus (SCHELLING)
1930, 89, 575
- —, — sugar, true, and alka-
line reserve, influence (SURE
and SMITH) 1929, 84, 727
- —, hematopoietic function
(SURE, KIK, and WALKER)
1929, 83, 387
- —, hypoglycemia, anhy-
dremia, hematopoiesis, nurs-
ing rats (SURE and SMITH)
1929, 82, 307
- deprivation, blood acid-base
balance (BURACK and COW-
GILL) 1932, 96, 673
- —, glucose tolerance (BUR-
ACK and COWGILL)
1932, 96, 685

Vitamin(s)—continued:

- B factors, heat stability (ELVEHJEM, KLINE, KEENAN, and HART) 1932-33, 99, 309
- —, yeast autoclaving, hydrogen ion concentration effect (WILLIAMS, WATERMAN, and GURIN) 1929, 83, 321
- , fat interaction, alimentary canal, sparing effect (EVANS and LEPKOVSKY) 1932-33, 99, 235
- , fish liver oils, toxic effect and (NORRIS and CHURCH) 1930, 89, 437
- fractions, insect test (McCAY) 1933, 100, lxxvii
- , growth effect (SURE, SMITH, KIK, and WALKER) 1931, 92, viii
- , — —, avitaminosis (SURE, KIK, and CHURCH) 1932, 97, vi
- , — factor (HALLIDAY) 1932, 96, 479
- , growth-promoting and anti-neuritic, differentiation (EVANS and BURR) 1928, 77, 231
- , isolation, brewers' yeast (SEIDELL) 1929, 82, 633
- , lactation effect (SURE and WALKER) 1931, 91, 69 (SURE, SMITH, KIK, and WALKER) 1931, 92, viii
- , — requirement (EVANS and BURR) 1928, 76, 263
- , — —, determination (SURE) 1928, 76, 673
- , lipid metabolism, avitaminosis, effect (SURE, KIK, and CHURCH) 1932, 97, vi

Vitamin(s)—continued:

- B, milk, infant mortality, rat (SURE) 1928, 76, 685
- , —, ration influence (HUNT and KRAUSS) 1931, 92, 631
- , nature, complex (HUNT) 1928, 79, 723 (HUNT and WILDER) 1931, 90, 279
- , —, plural (HOGAN and HUNTER) 1928, 78, 433
- , —, tripartite (WILLIAMS and WATERMAN) 1928, 78, 311
- , phosphorus metabolism, hyperplastic thyroid, influence (SANDBERG and HOLLY) 1932-33, 99, 547
- B-sparing action, fat (EVANS and LEPKOVSKY) 1932, 96, 179 1932-33, 99, 235, 237
- —, fats, melting point and unsaturation, relation (EVANS and LEPKOVSKY) 1932, 96, 165
- —, fatty acids, glycerides effect (EVANS and LEPKOVSKY) 1932, 96, 179
- —, oleic acid glycerides (EVANS and LEPKOVSKY) 1932-33, 99, 237
- effect, fat interaction, alimentary canal (EVANS and LEPKOVSKY) 1932-33, 99, 235
- B, sucrose-high diet, fat effect (EVANS and LEPKOVSKY) 1931, 92, 615
- synthesis, cow rumen (BECHDEL, HONEYWELL, DUTCHER, and KNUTSEN) 1928, 80, 231

Vitamin(s)—continued:

- B, third factor (HUNT)
1928, 79, 723
(HUNT and WILDER)
1931, 90, 279
—, tomato, ripening effect
(HOUSE, NELSON, and
HABER) 1929, 81, 495
—, ultra-violet rays, action
(HOGAN and HUNTER)
1928, 78, xvii
B₁ (LEVENE) 1932, 95, 317
— adsorption, *Brassica chin-
ensis* (MILLER and ABEL)
1933, 100, 731
—, appetite effect (GRIFFITH
and GRAHAM) 1932, 97, vii
—, chick for study (KLINE,
KEENAN, ELVEHJEM, and
HART) 1932-33, 99, 295
—, food utilization (GRIFFITH
and GRAHAM) 1932, 97, vii
—, milk, protein-free, heat ef-
fect, varying hydrogen ion
concentration (HALLIDAY)
1932, 98, 707
— standardization (SMITH)
1933, 100, 225
—, yeast, extraction (SEIDELL)
1933, 100, 195
(SMITH) 1933, 100, 225
B₂ (LEVENE) 1932, 95, 317
—, appetite effect (GRIFFITH
and GRAHAM) 1932, 97, vii
—, chick for study (KLINE,
KEENAN, ELVEHJEM, and
HART) 1932-33, 99, 295
—, food utilization (GRIFFITH
and GRAHAM) 1932, 97, vii
—, hemin, relation (SMITH)
1933, 100, 225
— standardization (SMITH)
1933, 100, 225

Vitamin(s)—continued:

- B₂, yeast, extraction (SMITH)
1933, 100, 225
—, *See also* Vitamin G.
B₃, Williams-Waterman (EDDY,
GURIN, and KERESZTESY)
1930, 87, 729
—, —, Randoin-Lecoq vita-
min, identity (LECOQ)
1931, 91, 671
B₄, growth factor (HALLIDAY)
1932, 96, 479
C concentrates, preparation
and properties, lemon juice
(GRIFFITH and KING)
1929, 84, 771
— —, —, lemon juice (SVIRBELY
and KING) 1931-32, 94, 483
(SMITH and KING)
1931-32, 94, 491
— —, storage, lemon juice
(SMITH and KING)
1931-32, 94, 491
—, electrical transference (Mc-
KINNIS and KING)
1930, 87, 615
—, identification and isolation
(WAUGH and KING)
1932, 97, 325
—, tomato, ripening effect
(HOUSE, NELSON, and
HABER) 1929, 81, 495
Carbohydrate metabolism, de-
ficiency effect (SURE and
SMITH) 1929, 82, 307
1929, 84, 727
Cod liver oil, separation (MAR-
CUS) 1928, 80, 9
D, alfalfa, curing effect (RUS-
SELL) 1929-30, 85, 289
— and A, differentiation, quan-
titative (SHERMAN and STIE-
BELING) 1930, 88, 683

Vitamin(s)—*continued*:

- D, calcium conservation, adult, and (KLETZIEN, TEMPLIN, STEENBOCK, and THOMAS) 1932, 97, 265 (TEMPLIN and STEENBOCK) 1933, 100, 209, 217
- , — —, calcium-low diet, adult, effect (TEMPLIN and STEENBOCK) 1933, 100, 209
- , — —, relation (KLETZIEN, THOMAS, TEMPLIN, and STEENBOCK) 1931, 92, ix
- , crystalline (BILLS and McDONALD) 1932, 96, 189
- , fecal reaction and (BACHARACH and JEPHCOTT) 1929, 82, 751
- , fish liver oils, natural, irradiated ergosterol and irradiated yeast, comparison (STEENBOCK, KLETZIEN, and HALPIN) 1932, 97, 249
- , isoergosterols, relation (BILLS, McDONALD, and COX) 1930, 87, liii (COX and BILLS) 1930, 88, 709
- , line test, critique (BILLS, HONEYWELL, WIRICK, and NUSSMEIER) 1931, 90, 619
- , milk, irradiated, amount and formation rate (SUPPLEE, HANFORD, DORCAS, and BECK) 1932, 95, 687
- , —, — ergosterol effect (KRAUSS and BETHKE) 1931, 92, x
- , overdosage effect (LIGHT, MILLER, and FREY) 1929, 84, 487 1931, 92, 47

Vitamin(s)—*continued*:

- D, parathyroid extract response, effect (MORGAN and GARRISON) 1929-30, 85, 687 1931, 92, xciv
- , quantitative study (SHERMAN and STIEBELING) 1929, 83, 497
- , tooth, effect (TEMPLIN and (STEENBOCK) 1933, 100, 217
- Deficiency, carbohydrate metabolism, effect (SURE and SMITH) 1929, 82, 307 1929, 84, 727
- , protein, fat, and carbohydrate digestibility coefficients, effect (ST. JULIAN and HELLER) 1931, 90, 99
- Dermatitis-preventing, ultraviolet rays, effect (HOGAN and RICHARDSON) 1932, 97, vii
- E concentrate, lettuce, preparation and properties (OLCOTT) 1932, 97, x
- deficiency, hematopoietic function (SURE, KIK, and WALKER) 1929, 83, 401
- , deprivation effect (EVANS and BURR) 1928, 76, 273
- destruction (WADDELL and STEENBOCK) 1928, 80, 431
- , liver lipids, unsaponifiable (FREYTAG and SMITH) 1933, 100, 319
- Fat-soluble (STEENBOCK, HART, RIISING, HOPPERT, BASHEROV, and HUMPHREY) 1930, 87, 103 (STEENBOCK, HART, RIISING, KLETZIEN, and SCOTT) 1930, 87, 127

Vitamin(s)—*continued*:

Fat-soluble (STEENBOCK, HART,
HANNING, and HUMPHREY)

1930, 88, 197

—, storage, lactation (SURE)

1928, 76, 659

—, sucrose-high diet, fat effect
(EVANS and LEPKOVSKY)

1931, 92, 615

Feeding experiments, measured
variables, per cent effect
(IRWIN, BRANDT, and NEL-
SON)

1930, 88, 449

— —, number of animals (IR-
WIN, BRANDT, and NELSON)

1930, 88, 461

— —, statistics (IRWIN,
BRANDT, and NELSON)

1930, 88, 449, 461

Fruits, dried (MORGAN and
FIELD)

1930, 88, 9

G and B, yeast, differentiation
by heat and ultra-violet irra-
diation (KENNEDY and PAL-
MER)

1929, 83, 493

— assay, coprophagy influence
(GUERRANT and DUTCHER)

1932, 98, 225

—, milk, protein-free, heat ef-
fect, varying hydrogen ion
concentration (HALLIDAY)

1932, 95, 371

— —, ration influence (HUNT
and KRAUSS)

1931, 92, 631

—, protein intake, and (SHER-
MAN and DERBIGNY)

1932-33, 99, 165

— stability (GUERRANT and
SALMON)

1930, 89, 199

Insects as test animals (SWEET-
MAN and PALMER)

1928, 77, 33

Vitamin(s)—*continued*:

Milk, human, yeast supple-
ment influence on potency

(McCOSH, MACY, and HUN-
SCHER)

1931, 90, 1

Pro-, A (QUINN and HARTLEY)

1931, 91, 633

—, D, fractionation (KOCH,
KOCH, and RAGINS)

1929-30, 85, 141

Randoin-Lecoq, Williams-
Waterman vitamin B₃, iden-
tity (LECOQ)

1931, 91, 671

Requirements, flour beetle
(SWEETMAN and PALMER)

1928, 77, 33

—, nursing rats (SURE, KIK,
and WALKER)

1928, 78, xviii

1929, 82, 287

Standards, international (NEL-
SON)

1933, 100, lxxiv

Synthesis, plant, light source
effect (HELLER)

1928, 76, 499

Williams-Waterman B₃ (EDDY,
GURIN, and KERESZTESY)

1930, 87, 729

See also Avitaminosis.

Vitellin: Egg (CALVERY and
WHITE)

1931-32, 94, 635

Vitellinic acid: Serinephosphoric
acid formation from hydroly-
sis of (LIPMANN and LEVENE)

1932, 98, 109

Volemitol: α -Sedoheptitol, iden-
tity (LA FORGE and HUDSON)

1928, 79, 1

W

Walden inversion: (LEVENE and
MORI)

1928, 78, 1

(LEVENE and MIKESKA)

1929, 84, 571

Walden inversion—continued:

- (LEVENE, MIKESKA, and PASSOTH) 1930, 88, 27
 (LEVENE and MARKER) 1931, 91, 77, 687
 1932, 95, 153
 Carbinols (LEVENE and ROTHEN) 1929, 81, 359
 Hexose series (LEVENE, RAYMOND, and WALTI) 1929, 82, 191
 3- and 4-thiolvaleric acid oxidation, relation (LEVENE and MORI) 1928, 78, 1
Water: Blood serum, osmotic behavior (SUNDERMAN) 1932, 96, 271
 Bound, colloids, biological (GREENBERG) 1932, 97, xlv
 —, determination, heat of fusion of ice method (ROBINSON) 1931, 92, 699
 Excretion, respiratory rate effect (HUBBARD and ALLISON) 1930, 89, 627
 Free, determination, heat of fusion of ice method (ROBINSON) 1931, 92, 699
 Retention, carbohydrate and fatty acids, relationship (MCCLENDON) 1930, 87, vii
 —, glucose relation (MCCLENDON) 1931, 92, xix
 Sea, chloride distribution, *Limulus polyphemus* blood and, hemocyanin influence (THOMAS) 1929, 83, 71
 —, *Limulus polyphemus* blood, relation (DAILEY, FREMONT-SMITH, and CARROLL) 1931, 93, 17
 Storage, liver, glycogen relation (BRIDGE and BRIDGES) 1931, 93, 181

Water—continued:

- Storage, liver, glycogen relation (PUCKETT and WILEY) 1932, 96, 367
 (MACKEY and BERGMAN) 1932, 96, 373
 (BRIDGE and BRIDGES) 1932, 96, 381
 Urea elimination, relation (GAMBLE, MCKHANN, and BUTLER) 1932, 97, lvii
 Urine, carbon dioxide breathing, high concentrations, effect (SIMPSON and WELLS) 1928, 76, 171
 (SIMPSON) 1929, 84, 413
 —, overbreathing effect (SIMPSON and WELLS) 1928, 76, 171
Wax: Acetyl number, determination (WEST, CURTIS, and HOAGLAND) 1933, 100, cii
 Soft, tubercle bacillus (ANDERSON) 1929–30, 85, 327
 Tubercle bacillus (ANDERSON) 1929, 83, 505
 — —, carbohydrates (ROBERTS and ANDERSON) 1931, 90, 33
 Unsaponifiable, tubercle bacillus (ANDERSON) 1929–30, 85, 339
 — — —, hexacosanic acid in (ANDERSON) 1929–30, 85, 351
Weight: Body, anemia, nutritional, hemoglobin and, iron therapy effect (BEARD) 1931, 92, lxxxix
 Height-, coordinates, nomogram, basal metabolism (BRUEN) 1929–30, 85, 607

- Wheat:** Amino acid deficiency, growth effect (MITCHELL and SMUTS) 1932, 95, 263
- Glutelin, optical rotation (CSONKA, HORN, and JONES) 1930, 89, 267
- Glutenin, nature and identity (BLISH and SANDSTEDT) 1929-30, 85, 195
- Rickets, irradiation and mineral supplements, effect (STEENBOCK, BLACK, and THOMAS) 1929-30, 85, 585
- Smut, *Tilletia levis*, trimethylamine isolation (HANNA, VICKERY, and PUCHER) 1932, 97, 351
- Vitamin B complex (HUNT) 1928, 78, 83
- Whole, flour, hemoglobin regeneration, influence (ROSE and VAHLTEICH) 1932, 96, 593
- , hemoglobin regeneration (ROSE and KUNG) 1932, 98, 417
- Winkler:** Titration, methylene blue (MARSH) 1932, 95, 25
- Wool:** Amino acids, basic (VICKERY and BLOCK) 1930, 86, 107
- Work:** Capacity, alkalosis and (DILL, EDWARDS, and TALBOTT) 1932, 97, lviii
- , factors (TALBOTT, HENDERSON, EDWARDS, and DILL) 1932, 97, xl
- Muscular, tissue catabolism, endogenous (MITCHELL and KRUGER) 1928, 76, 55
- X**
- Xanthine(s):** Methyl-, uric acid excretion, influence (MYERS and WARDELL) 1928, 77, 697
- Methylated, methyl uric acids excretion, ingestion effect (HANZAL and MYERS) 1932, 97, lxi
- Xanthoma:** Lipids (ECKSTEIN and WILE) 1930, 87, 311
- Xanthophyll:** Oxidation, fatty acids, volatile (SMITH and SPOEHR) 1930, 86, 755
- Vitamin A source (KLINE, SCHULTZE, and HART) 1932, 97, 83
- Xanthylic acid:** Adenylic acid and, hydrolysis rate, comparison (LEVENE and DMOCHOWSKI) 1931, 93, 563
- Guanylic acid and, hydrolysis rate, comparison (LEVENE and DMOCHOWSKI) 1931, 93, 563
- Ribosephosphoric acid from (LEVENE and HARRIS) 1932, 95, 755
- 1932, 98, 9
- X-ray:** See Roentgen ray.
- Xylodese:** Thymine structure, relation (LEVENE and MORI) 1929, 83, 803
- l-Xyloketose:** Urine, metabolism significance (GREENWALD) 1931, 91, 731
- Xylose:** Metabolism (BLANCO) 1928, 79, 667
- d-Xylose:** Absorption, d-xylose ingestion effect (MILLER and LEWIS) 1932, 98, 133

d-Xylose—continued:

Alkali influence (AUSTIN,
SMALLEY, and SANKSTONE)

1931, 92, xviii

Disposal (CORLEY)

1928, 76, 23

Glycogen formation, ingestion
effect (MILLER and LEWIS)

1932, 98, 133

Tissue pentose, ingestion effect
(MILLER and LEWIS)

1932, 98, 141

Yeast: Autoclaving, vitamin B
factors, hydrogen ion concen-
tration effect (WILLIAMS,
WATERMAN, and GURIN)

1929, 83, 321

Bile salt output, influence
(SMITH and WHITPLE)

1928, 80, 671

Calcium utilization, lactation,
supplement (MACY, HUN-
SCHER, McCOSH, and NIMS)

1930, 86, 59

Diet supplement, vitamin po-
tency, milk, human, influence
(McCOSH, MACY, and HUN-
SCHER)

1931, 90, 1

Ergosterol, carbohydrate
sources (MASSENGALE, BILLS,
and PRICKETT)

1931-32, 94, 213

—, cerevisterol accompanying
(HONEYWELL and BILLS)

1932, 97, xxxix

1932-33, 99, 71

—, various species (BILLS,
MASSENGALE, and PRICK-
ETT)

1930, 87, 259

Feces, ingestion effect (PIERCE)

1932, 98, 509

Yeast—continued:

Fermentation, iodoacetate in-
hibition (EHRENFEST)

1933, 100, xxxviii

—, moniodoacetate influence
(EHRENFEST)

1932, 97, lxxvi

Fermenting, glycols reduced
by, configurations (LEVENE
and WALT)

1931-32, 94, 361

Fractions, synthetic ration sup-
plement (KENNEDY and PAL-
MER)

1928, 76, 591

Growth, antineuritic vitamin,
effect (WILLIAMS and
ROEHM)

1930, 87, 581

—, iron and copper rôle (ELVE-
HJEM)

1931, 90, 111

—, thallium effect (RICHARDS)

1932, 96, 405

Invertase, diffusion, collodion
membranes (NELSON and
PALMER)

1930, 87, 1

—, properties (NELSON and
PALMER)

1931, 92, lxxviii

Iron, cytochrome and (COOL-
IDGE)

1932, 98, 755

Irradiated, calcium and phos-
phorus metabolism, effect,
milking cows (HART,
STEENBOCK, KLINE, and
HUMPHREY)

1930, 86, 145

—, milk antirachitic value, ef-
fect (STEENBOCK, HART,
HANNING, and HUMPHREY)

1930, 88, 197

—, —, blood, and excreta, ef-
fect (HESS, LIGHT, FREY, and
GROSS)

1932, 97, 369

Yeast—continued:

- Irradiated, vitamin D, fish liver oils, natural, comparison (STEENBOCK, KLETZIEN, and HALPIN) 1932, 97, 249
- Metabolism, iron and copper, rôle (ELVEHJEM) 1931, 90, 111
- Nitrogen retention, normal and depancreatized dogs, influence (NASSET and PIERCE) 1930, 87, xli
- utilization, lactation, supplement (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- Oxidation by, moniodoacetate influence (EHRNFEST) 1932, 97, lxxvi
- Phosphorus utilization, lactation, supplement (MACY, HUNSCHER, McCOSH, and NIMS) 1930, 86, 59
- Poisoned by iodoacetic acid, amines, effect (SCHROEDER, WOODWARD, and PLATT) 1933, 100, 525
- Proteins (CSONKA) 1933, 100, xxxiii
- Sugar separation (RAYMOND and BLANCO) 1928, 79, 649
1928, 80, 631
- Suspension, determination (WILLIAMS, McALISTER, and ROEHM) 1929, 83, 315

Yeast—continued:

- Synthetic ration supplement (KENNEDY and PALMER) 1928, 76, 591
- Urine, ingestion effect (PIERCE) 1932, 98, 509
- Vitamin, antineuritic, isolation (SEIDELL) 1929, 82, 633
- B complex (LEWIS and RYMER) 1933, 100, lxiii
- — —, third factor (WILLIAMS and LEWIS) 1930, 89, 275
- B₁ extraction (SEIDELL) 1933, 100, 195
(SMITH) 1933, 100, 225
- B₂ extraction (SMITH) 1933, 100, 225
- Vitamins B and G, differentiation by heat and ultra-violet irradiation (KENNEDY and PALMER) 1929, 83, 493

Zea mays: See Corn.

Zein: Dielectric constant (WYMAN) 1931, 90, 443

Zinc: Biological material, determination (TODD and ELVEHJEM) 1932, 96, 609

Blood filtrates, nitrogenous substances (SOMOGYI) 1930, 87, 339

